

THE AMERICAN BEE JOURNAL

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Editor's Table.

The editor of the BEE JOURNAL has, by particular request, agreed to give a lecture at the Nebraska State Fair at Omaha, on Sept. 24th. Subject: "Bee-Keeping a Science."

A correspondent desires to know if it will do to sow melilot clover now; and if sown now, will it bloom next year? Now is the best time to sow it. It will bloom but little next season, and that quite late.

Reports received during the past month assure us that the fall honey harvest has been large. Bees now have, in many localities, enough for their winter use. A failure three years in succession is hardly possible, and we confidently expect a full crop next year.

Careful handling of bees will sometimes cure those that are irritated, but they remember careless and rough treatment for a long time, and often it takes a new generation to get over the disposition to pay someone out for any heedless management.

The more a man knows about any subject the greater will be his charity for and sympathy with views differing from his own. It is only the inexperienced that is ever ready to abuse any one differing from their pet notions. "Charity suffereth long and is kind," said one of old.



Obtaining Cheap Notoriety.

Some persons, to attain notoriety, will descend to the use of the most diabolical means. They have a contemptible way of selecting a prominent individual to abuse and defame, without a shadow of excuse, save the attainment of that notice which they covet, and which they could obtain in no *honorable* way. This is forcibly illustrated by the following scurrilous language applied to America's greatest living bee master, the Rev. L. L. Langstroth, by the little monthly which has been selected by the "co-operative" clique to be their organ :

"Rev. Langstroth was not the originator of the first movable frame hive, and we know it." "He stole that movable frame idea from another party and then patented it, thereby practicing a *fraud* on the people and taking the reputation that rightly belonged to others, *for which he is getting his just retribution.*" "What egotism, or what ignorance. Just think of a man who pretends to have sense and brains to write a treatise on bee-culture (Prof. Cook), who says that Langstroth is the inventor of a bee hive."

Such insinuations are both infamous and unpardonable! Is it not a *crime* to thus maliciously charge with fraud, lying and stealing, a man who has done so much for the advancement of scientific apiculture, and spent his life in its study and development?

Is it not *infamous* to thus attempt to rob an old gentleman of his well-earned reputation, when he is utterly unable to help or defend himself, by reason of physical suffering and wasting disease?

Is it not *blasphemous* to thus intimate that his afflictions are a retribution visited upon him by the Creator, in whose service his life has been spent, and to whose glory every act has redounded?

Think of the *cowardliness* of the assault on one who has suffered so much to advance the interests of the bee-keepers of America—who, by reason of affliction, has now passed from the stage of active participation in the cause he loved so well!

His work is now done, and he only awaits the angel's call to that "rest for the weary, where the wicked cease from troubling." Standing on the brink of the vast ocean, we watch with intense

anxiety until the last struggle is over, when he will sink beneath death's yielding wave.

Apriarists the world over unite to honor his memory, and his name will adorn the pages of history as one of the greatest apriarists the world ever produced; while the sycophant who attempted to ruin the fair reputation of that great and good man will be execrated, and his name will be buried in oblivion!

••• The Convention at Chicago was very interesting and instructive, and we have no doubt that the "Northwestern Bee-keepers' Society" there organized will become one of the most valuable societies of America. The selection of Dr. Miller, for President, was a wise choice, as he is one of the best and most successful apriarists of the west. Mr. G. M. Doolittle, of New York, was enthusiastically welcomed, and made many warm friends. Signor Mihl, a bee-keeper from Spain, who is spending a short time in America, to obtain information respecting our methods and management, gave an interesting account of bee-keeping in Spain. Great unanimity prevailed, and a sincere desire was manifested to act harmoniously on all important measures. Conventions, carried on in this manner, are always beneficial; but those where personal animosity and strife are allowed to enter are but a detriment, and should be discarded by all right-minded persons.

••• The preparation of bees for winter should now be the study of all judicious bee-keepers. If not yet decided as to how to prepare them, read up at once, apply the knowledge obtained to practice, and be prompt in making all the necessary arrangements.—The different plans of wintering have been so often described in the BEE JOURNAL, that it will be only necessary to "read up" on that subject to gain all the information necessary to winter successfully by any ordinary method.

Are Bees a Nuisance?—Mr. B. B. Barnum of Louisville, Ky., has sent us a copy of the *Louisville Courier-Journal*, containing the following item:

"A case of stinging by bees in Philadelphia is thus referred to by the *Times*: 'There is no law in relation to the keeping of bees within the city, but should it become objectionable to three or more neighbors, then it could be declared a nuisance and the owner of the bees compelled to abate it. Where only one person suffers, his only course for redress is a civil suit for damages or a bill in equity to compel the abatement of the nuisance.' Here is another instance of idiotic law-making. A nuisance is a nuisance just as much in the case of one person as in that of a dozen. A civil suit ought to be unnecessary in any plain case."

Mr. Barnum writes: "If one case of stinging by bees is sufficient, then good-bye to bee-keeping in this city.

The **BEE JOURNAL** apiary contains about seventy colonies now, having sold down from over a hundred, and is situated within 250 feet of a crowded thoroughfare, but we have no complaints from people being stung. Our bees are all pure Italians and usually as harmless as flies. Those keeping bees in cities should keep only the most docile kinds, and there would then be no trouble about the neighbors being stung by them.

Foul brood, that most dreaded of all bee diseases, has again made its appearance in Michigan. The Southern Mich. Bee-Keepers' Association held a meeting at Battle Creek on the 2d. ult., to take the matter into consideration, and learn the best means of curing it. The report of this meeting will be found on page 459, and, on page 479, we have given a full description of its cause and cure from the German *Bienen Zeitung*. Those who desire to know anything of this disease will read it with interest.

I have obtained 4,000 lbs. of comb honey and 1,000 lbs. extracted from 85 colonies in the spring, besides 15 swarm.

GUSTAV ILISCH.

Hickman, Ky., Sept. 14, 1880.

Asters—Fairs.—Can you tell me the names of the enclosed specimen? It is closely allied to the golden rod, and is an excellent honey plant. It blooms late in autumn and even a little frost will not injure it. I have just returned from the county fair, where I had some honey on exhibition in 2 lb. sections. It attracted the attention of everyone for its very neat and beautiful appearance; 40 lbs. of this very beautiful honey was taken off at one time, from a 10-frame Langstroth hive.

L. H. PAMMEL, JR.
LaCrosse, Wis., Sept. 18, 1880.

[Yes; this is an aster.—ED.]

The Dominion Pet Stock Bazaar is the name of a new paper published in Toronto; Mr. G. Hooper is its editor. It contains eight pages, one of which has items on bees. It is proposed to issue it under the name of the *Dominion Apiarian Bazaar* if sufficient encouragement be given it.

On the 18th. ult., an apple tree near our residence, bloomed for the second time this season, giving bees an excellent feast. We sometimes hear of such, but it rarely occurs. The foliage was nipped by a frost, and fell off; the sap, remaining in the tree, caused this second bloom.

On page 406, of the JOURNAL for September, Mr. Bagby mentions two fertile workers, sent me for dissection. I have dissected only one of them, and she seems to be a perfect worker in all respects except in the development of her ovaries. There is no spermatheca to be seen.—A. J. COOK.

In an exchange we see that it is stated that a French traveler, M. Pierre Arnoux, while traveling lately in Abyssinia, discovered in small cavities of the soil a species of honey without wax, produced by an insect resembling a large gnat. Its composition resembles that of the manna of Sinai and Kurdistan, and the sugar found in the leaves of the plane tree, as well as ordinary honey; but it is distinguished from all these by the total absence of cane sugar.



A Swarm of Bees Capture a Car.

The Leavenworth, Kan., *Times*, gives the following details of a swarm of bees that lately came to that city on a quiet Sunday afternoon. The *Times* says: "When the Chicago, Rock-Island & Pacific arrived it came in under a cloud. A large swarm of bees settling on the top of the car while near Beverly, in Missouri, took deck passage for Kansas, and the fears of the conductor and other men on the train of a stinging rebuke prevented any attempt to put the dead-heads off. When the car arrived here Police Officer McCart was apprised of the fact that he could take in a number of prisoners if he would visit the car. He went to investigate, and finding the bees snugly ensconced on their novel abiding place, proceeded to effect their capture by coaxing them into an empty keg. He succeeded in capturing the entire swarm, taking more prisoners than he will have at any one time while he is on the force. He says they are doing well."

• • • "What we Eat."

The *American Poultry Journal* speaking of the new work on "Food Adulteration," says :

A subject in which every one is interested, discussed in a manner which every one can comprehend, should constitute a popular book, and such a volume is just issued under the title of "Food Adulteration; or What We Eat and What We Should Eat."

The writer, with the assistance of competent chemists and micrologists, among whom may be mentioned Dr. R. U. Piper, Dr. T. D. Williams, and Prof Geo. A. Mariner, has made over five hundred analyses and microscopical examinations of articles of food procured from the grocery shops and such as are daily supplied the consumer throughout the country. The results of these examinations are simply appalling. The sophistication of articles of food is a subject which has attracted more or less attention in England, France, and other foreign countries, and it is a severe commentary upon the enlightenment, as well as the morality of our own Government, that while the consumer of the Old World is protected

in person and in purse against the health-destroying adulterations and shameless frauds practiced by unscrupulous purveyors of food, there has been as yet no general legislation upon this subject this side the waters.

There is not a page in this little work which cannot be read with interest and profit, and it should find its way into every family of the country, where it should create a sentiment to demand the correction of this great and growing evil. The chapters upon "Oleomargarine" and "Glucose," the modern substitutes for butter and sugar, will be found especially interesting. The valuable paper treating upon the first named subject is from the able pen of Dr. Piper, and is interspersed with original microscopic drawings showing what the doctor has, with the aid of his instruments, actually discovered in this latest abomination of the adulterations.

It is beautifully printed and handsomely illustrated and is for sale at this office. Price 50 cents.

Suspended.—In the *BEE JOURNAL*, for May, page 217, we stated the fact that another bee paper, entitled "Our Apiary," had made its appearance. Now we find, in the *New York Newspaper Reports* for August, page 733, that it has been "suspended for want of sufficient support." Any enthusiast, with a few dollars, can get out a number or two of a paper with 8 or 16 pages, but it takes money to successfully publish a bee paper that will be of value to bee-keepers. The one just deceased was published at 50 cents a year, and at that price it could neither do justice to itself nor its patrons, hence both are probably disgusted with the enterprise. When the *AMERICAN BEE JOURNAL* was started, there was no paper published in America, "devoted exclusively to bee-culture." Since then, seven have started and died, and six besides the *AMERICAN BEE JOURNAL* are now being published, making seven in all. With a field already too much occupied, who will be the next to venture? We shall see.

• • • Take advantage of the first favorable weather to look over the bees, and prepare them for winter.

Display of Bee Furniture.

We have received a copy of the Lexington, Ky., *Daily Transcript*; containing the following notice of the exhibit made by Williamson & Brother at the Fair:

The fine display of bee-keepers' supplies made by Williamson & Bro., of this city, on which they took the premium, deserves special notice. Perhaps no display in Floral Hall attracted more attention, and was less understood by the majority of visitors. Even a great many bee-keepers do not know the innumerable number of implements used in the successful management of the apiary, such as bee-veils, queen-cages, honey extractors and knives, comb foundation, section frames, bee feeders, bee smokers, rubber gloves, honey jars, &c. of different makes and styles of the above articles to suit the fancy of all.

Their beautiful display of honey was greatly admired.

The greatest novelty in their display is perhaps the Queen Hatching Nursery for raising queen bees by steam. It is a square box, with an inside tin box with double walls, and a space between all around, in which is placed water heated by lamps below. The thermometer is kept at about 100° Fahrenheit. The queens can be seen emerging from their cells, which resemble a peanut.

Their observation hive of Italian bees were admired above all else in their display; probably because everybody knows they "improve each shining hour," and moment, too, when in a stinging mood.

They have also in their display all kinds of bee literature, and it seems to us that such displays cannot receive too much encouragement at the hands of the Association. We hope to see this branch of industry encouraged.

The Fair Directors say that the lively interest displayed in this exhibit, and the *attraction* that it proved to be, will warrant them to offer larger premiums next year. Keep the ball rolling!

James McIntyre, London, Ont., writes: It has been said a bee-hive is the poorest thing in the world to fall back on. Let no one believe it; for there is nothing in the world that will raise you up again so quickly!

Is it a Superior Strain of Bees?

Mr. Otis Ames, Fort Fairfield, Maine, writes as follows:

I had but 1 colony of Italians and that one cast a swarm on June 10th, a second on June 16th, a third on June 18th, and a fourth on June 20th, making 4 in 10 days; they were put in Gallup hives containing 1,900 cubic inches; they have all built up and gathered 88 lbs. of comb honey; the fourth produced 12 lbs. The first swarm that came out on June 10th, cast a swarm July 18th, and second July 31st, and they have each filled their hives of same size as the others. They have a plenty to winter on. The parent colony, after swarming four times, produced 48 lbs. of comb honey, which is 136 lbs. from 1 colony and its increase of 6, so that I now have seven.

If any of the readers of the AMERICAN BEE JOURNAL can beat that, this season, I should be pleased to hear from them. Now, Mr. Editor, is that an every day occurrence for Italians, or are mine an extra strain of Italian bees? I never had them before and I do not know what they will do on an average.

This has been rather a poor season here, not more than $\frac{1}{2}$ a crop. I put out 57 colonies last spring, 10 weak and the rest in fair condition. I have 2,000 lbs. of comb honey, which is about 35 lbs. on an average, per colony. In the year 1870, my average per colony was 60 lbs. I have increased to 89 colonies by natural swarming this year.

[Such a report as the above, in a poor season, is quite refreshing. This is another proof of superiority for the Italian race.

Just at the hour of going to press, we have received the minutes of a very interesting meeting of the Northwestern (Mo.) Bee-Keepers' Association, containing a lengthy editorial notice of the same. R. S. Musser, Secretary, writes: "The AMERICAN BEE JOURNAL was awarded the premium at our Exposition for the 'Best Bee Journal.'" The Association adjourned to meet in St. Joseph, Mo., on the 13th inst., at the Court House. All interested in bee-keeping are cordially invited to attend, as there will be many questions of importance brought up for discussion.



Does it pay to Plant for Honey?

In confirmation of the advice given by the *BEE JOURNAL*, we notice that many are now advising to plant for honey. Mrs. L. Harrison, in the *Prairie Farmer*, says:

Wherever the apiarist may be located, he should observe the time of the year, when a scarcity of honey is likely to occur, and provide, if possible, for this contingency, and by taking note of the few nectar yielding flowers at this time, will discover what could be cultivated to advantage. In our dry sandy soil, which is so easily affected by drouths, we fail to find a better honey plant than sweet clover (*Melilotus alba*), blooming from the middle of June until late in autumn. "It is mete" that we should talk about these things now, for the seed is ripening, and if it is scattered now upon the highways, gravelly banks and waste places generally, as it is self-sowing and not eaten by stock, the honey flow may be materially increased. One honey producer furnishes this seed to hands working along the railroads, who carry it in their pockets at all times, sowing it wherever they disturb the soil.

Sweet clover has a twin sister, known among bee-keepers as the Rocky Mountain bee plant (*Cleome integrifolia*) whose habitat is Colorado, and that region formerly known as the Great American Desert. It cares not for drought, but will put forth its leaves and expand its pink petals "alle samee."

Catnip (*Nepeta cataria*) furnishes nice white honey, blooming during July and August, and as it, and the rest of the mint family, are great favorites of the busy bees, they should receive fostering care by bee-keepers.

Convention at New Boston, Ill.—The eighth semi-annual meeting of the Western Illinois and Eastern Iowa Bee-Keepers' Society, will be held at New Boston, Mercer Co., Ill., Oct. 14 and 15, 1880. All are cordially invited to be present. The usual programme of discussions, prizes, lectures, etc., will be carried out as formerly. The committee of reception will receive and exhibit free, all articles sent by bee-keepers or manufacturers, if sent to L. H. Scudder, New Boston, Ill., and charges prepaid. **WILL. M. KELLOGG, Sec.**

Bees have done tolerably well here; I have obtained 50 to 60 lbs. of comb honey from 2 colonies; no extracted.

Clyde, Kan., Sept. 8. C.M.GAYLORD.

"The Bee of the Future."—The Austrian *Bienen-Zeitung*, referring to this subject, remarks as follows :

"Friend Newman names the American bee as the bee of the future! True it is, that the American apiarists have gained brilliant results, but neither honey nor bees do it all alone; there must be a working together of many factors. If we only had America's wealth of honey-plants, we certainly could do as well as they can, with our degenerated European bees. But we do not intend to say, that nature alone does all the work for the Americans, without any exertions on their part. No, indeed; but they understand better how to make nature subservient to their purposes. Just as high as we stand in theory do they stand in practice, and in the latter we must try our utmost to catch up with them, and, if possible, to get ahead of them."

The "co-operative" paper has at last appeared, and it is to be hoped that the few morbid individuals will now be happy—at least for a time. As was generally expected, it overflows with false assertions, distorted facts, garbled quotations and malevolent abuse. This is not only heaped upon the editor of the *AMERICAN BEE JOURNAL*, but also upon the Rev. L. L. Langstroth, Prof. Cook, Rev. O. Clute, Mr. G. M. Doolittle, Mr. T. F. Bingham, &c. For all this there can be but one object, and that is to advertise the "co-operative" paper. In our April number we briefly answered these calumnies, and do not propose, by their stale repetition, to be badgered into further controversy.—New matter *only* is worth answering. Those who relish abuse and vile slander might take the "co-operative" paper, but those who desire one devoted to apiculture will certainly choose some other.

"Always in demand and always brings the highest price," is what is said of nice comb honey, put up in the most attractive shape. Those who produce comb honey in a poor and unsalable shape only work against their own interests. To aim for the *best*, should always be our motto.



Something about the Convention.

The Cincinnati *Gazette* has the following notice of the National Convention, and facts and figures concerning bee-culture which will be read with interest:

The American National Bee-Keepers' Association will hold their Convention in this city, on the 29th and 30th of September and 1st of October. There will be delegates present from all parts of America. Every State of the Union will be fairly represented, and a large number of bee-keepers are expected to participate in the proceedings. One republican feature of the Convention will be that not only delegates will be admitted to the various discussions, but every one who has an interest in bee culture. Among the topics to be considered will be the progress of the science of bee culture and the present and future state of the honey market. A most interesting item will be the discussion of the many improvements which have been made in the various departments of bee raising within the past few years. The progress in this direction has simply been wonderful. The honey extractor, an invention of Maj. V. Hrushka, improved upon by numbers of others in many ingenious ways, has been in use now about 12 years, and has wrought quite a revolution in the production of honey.

It works on the principle of centrifugal force, somewhat in a manner of a winnow, and preserves the honey comb entire. This fact, together with the invention of comb foundation, which is far more perfect and suitable than the natural comb, has been instrumental in increasing the honey yield more than four fold, for under the old system, when the bees were obliged, after every destroyed layer of honey, to build one afresh with long and continuous toil, they consumed between 20 to 30 lbs. of honey in order to manufacture 1 lb. of comb.

Before the invention of this extractor, the so-called Cuba honey flooded our markets. It was produced wild in the trees of the West India Islands, and with larvae in different stages of development, and bee bread and other impurities mashed into a promiscuous mess, and thus shipped to New York and Boston. Druggists then pretended to cleanse and clarify it, but it was not always done, and besides it was almost impossible to make it a palatable article, or fit for the use of the sick. Now a much finer article is used, even for manufacturing purposes.

Bakers, tobacconists, meat curers, druggists, compounders of liquors, and other manufacturers use honey extensively, though they do not require for their purposes the choicest of all brands the white clover honey, but instead the linden, buckwheat, or poplar honey.

The white clover honey is confined to table use and medicinal purposes. Jacob Vogel, pork packer in this city, buys a barrel of honey every other week from Mr. Muth for curing hams.

The business in this sweetest of all products has grown to be immense in the United States. Thurber & Co., in New York, in 1879, sold in one week 65,000 lbs., and during the year over 1,000,000 pounds of honey. In regard to the capacity of the States, California produces the largest quantity, being the most abundantly blessed with a variety of honey producing flowers.

As regards quality, no better honey is raised than in our immediate vicinity, because the bees can scarcely feed on anything else here save white clover. If the Southern people showed the same energy in the cultivation of bees as is displayed in the Northern States, they would outdo even California in an immensely productive yield of honey. There is an inexhaustible supply there of honey producing flowers. Carloads of the product are shipped from the States of Michigan, Wisconsin, Louisiana and Mississippi. Mr. Muth received recently a shipment of several thousand pounds of honey from Dr. O. M. Blanton, Greenville, Miss., and pronounces it the finest that he has ever received from the South. He has a large apiary, and bestows all his care and attention upon the subject of bee culture. Cincinnati and vicinity have not been slow in cultivating this interesting science, and most profitable investment. There are several large apiaries in and about the city, among which may be mentioned those of Chas. F. Muth, Joseph Savage, Ludlow, Ky., who bestows most of his time to queen-rearing; J. S. Hill, of Mt. Healthy; King Kramer, Dry Ridge; Richard Curry & Bros., East Walnut Hill; J. Coates, White Oaks.

Mr. J. S. Hill has 120 colonies and possesses the finest apiary in the Western country, beautifully laid out, and artistically managed.

Mr. Curry is also an enthusiast in the science, and has been very successful in the plentiful production of honey. It is safe to say that in a good season the yield of Cincinnati and vicinity will amount to over 100,000 pounds.

No one here has bestowed more time and careful study to the subject than



Mr. C. F. Muth, 978 Central avenue. He has been in the business over 20 years, and has had an apiary at his present stand for 18 years. For the past 15 or 16 years his bees have not swarmed, excepting once about two years ago, which was caused by a slight inadvertence. He says that by keeping the hives large enough for the increase of bees, and at the same time sufficiently small for an abundant supply of honey, all swarming may be avoided.

Mr. Muth sold over 200,000 pounds of honey last year, and his business has increased steadily. His apiary perched on top of a two-story roof in the rear of his house is a perfect curiosity and worth a visit. He has 40 colonies, all in active operation. The yield during the past season has been exceedingly poor, only 15 lbs. to each hive; in fact, though the preceding 2 years have been very meager in their honey productiveness, the present one has been the most meagre of all. There was an abundance of fruit blossoms in the early spring, and locust flowers, and white clover in the month of June, but somehow there were no honey secretions, and the bees returned minus the sweet essence. His bees feed on the clover of the hilltops, and the flowers that are found in the immediate suburbs, especially the country about Cumminsville. Three years ago he averaged 198 lbs. of honey for each hive, and the preceding year 170 lbs.

Mr. D. A. Jones, of Canada, recently made a trip to the Isle of Cyprus, and brought with him about 200 fine specimens of queens, which may in course of time supplant the present Italian progeny, on account of their superior skill and productiveness. They are considered more agile and strong than the Italian queens, and some of our home bee-keepers will give them a fair trial.

Mr. Muth bought a large number of Egyptian queens about 5 years ago, and found them almost superior to the Italian, but they were intractable, and would not allow the honey to be taken away from them, in consequence of which he was obliged to destroy them. The science of bee culture has grown to be very systematic of late years, and the raising of pure stock has been conducted on as correct and scientific principles as the breeding of blooded horses and stock. From certain colonies queens are raised, from others drones, and both at pleasure, and the beauty is that the several families can be kept entirely separate and distinct from each other.

Langstroth's hive is the one that is

generally in use, and has movable combs in the brood chamber. Above the brood chamber is an arrangement of 3 sectional boxes, each containing 8 small frames for the accumulation of comb honey. Each of these frames holds from $1\frac{1}{2}$ to 2 lbs. of the product. Other hives are arranged with 10 large frames of comb in the honey chamber for the production of extracted honey.

The study of bees is one of the most absorbing and useful, and the work of the coming Convention will be considered with interest by those who can appreciate the animal type of industry and the sweetest product of nature.

National Society Officers for 1879-80.

The following is a corrected list of the officers of the North American Bee-Keepers' Society:

President—Thomas G. Newman, Chicago, Ill.
Recording Sec.—Ehrick Parmly, New York.
Corresponding Sec.—O. Clute, Iowa City, Iowa.
Treasurer—F. A. Dunham, Depere, Wis.

STATE VICE PRESIDENTS.
 Alabama—J. A. Austin, Huntsville.
 Arkansas—Dr. W. W. Hippolite, Devall's Bluff.
 California—C. J. Fox, San Diego.
 Colorado—J. L. Peabody, Denver.
 Connecticut—H. L. Jeffrey, Woodbury.
 Dakota—Calvin G. Shaw, Vermillion.
 Florida—Dr. J. M. Keyes, Iola.
 Georgia—Dr. J. P. H. Brown, Augusta.
 Illinois—E. J. Oatman, Dundee.
 Indiana—Rev. M. Mahin, Huntington.
 Iowa—E. D. Godfrey, Red Oak.
 Kansas—D. P. Norton, Council Grove.
 Kentucky—N. P. Allen, Smith's Grove.
 Louisiana—Paul L. Viallon, Bayou Goula.
 Maine—J. H. Spaulding, Augusta.
 Maryland—J. M. Valentine, Double Pipe Creek.
 Massachusetts—Dr. E. P. Abbe, New Bedford.
 Michigan—Prof. A. J. Cook, Lansing.
 Mississippi—Rev. J. W. McNeil, Crystal Springs.
 Missouri—P. P. Collier, Benton City.
 Nebraska—George M. Hawley, Lincoln.
 New Hampshire—J. L. Hubbard, Walpole.
 New Jersey—Prof. J. Hasbrouck, Bound Brook.
 New York—A. J. King, New York.
 North Carolina—T. B. Parker, Goldsboro.
 Ohio—C. F. Muth, Cincinnati.
 Ontario—D. A. Jones, Beeton.
 Pennsylvania—W. J. Davis, Youngsville.
 Quebec—Thomas Vallquet, St. Hilaire.
 Tennessee—S. C. Dodge, Chattanooga.
 Texas—F. F. Collins, Cleburne.
 Vermont—Jacob Ide, Putsumscie.
 Virginia—J. W. Porter, Charlottesville.
 West Virginia—E. W. Hale, Wirt C. H.
 Wisconsin—Christopher Grimm, Jefferson.

Some persons complain of our discontinuing their papers, if not promptly renewed. To accommodate such as desire it continued and wish a few weeks "grace," we will in future so mark their papers and continue a short time, if they will send us a "card" requesting it. We desire to accommodate all, but can not think of adopting the credit system again.

Conventions.

Southern Michigan Convention.

A special meeting of the Southern Michigan Bee-Keepers' Association was held in Battle Creek, Mich., on Thursday, Sept. 2, 1880. Over 30 members were present and took part in the discussions. Letters were read from Mr. James Heddon, Mr. J. H. Townley and others, and the question of foul brood was discussed.

The crop reports of 34 bee-keepers were as follows: From 518 colonies in the spring they had 377 swarms, 2,586 lbs. of comb honey, and 695 lbs. of extracted; being a little over 6 lbs. to each colony in the spring. Mr. Heddon reported no fall honey, and not one-fifth of a crop. Mr. Townley had obtained but 40 lbs., but if the weather continued favorable he might obtain 2,000 lbs. more.

Mr. Heddon's essay was as follows:

The Honey Producer's Future.

The poor season, though very hard on us, especially those of us who are largely spread out in the business, will, I feel confident, prove a blessing to us. It will teach us that bees do not "work for nothing and board themselves." It will teach us not to rush our honey into the market all at once, but to hold for a remunerative price. If one-fourth of a crop will bring one-half more price, let us sell our next good crop in fourth lots.

The honey-producer's future looks brighter to-day than for some time past. The new and useful improvements, such as foundation, etc., together with our accumulated knowledge of manipulation, and last, but not least, the export trade in our product, all whisper "Success." I rejoice that I am thus enabled to conscientiously own that our prospects look brighter.

The large, yes, almost unlimited foreign demand for honey, will prevent a glut in the market; and now, bee-keepers, it rests with you to use discretion with the source of our product—the field. No wise apiarist will try to produce honey in a range already occupied by another. From the unwise, little fear of successful opposition need be entertained. Thousands of good locations are yet unoccupied, and if it will not pay the would-be honey-producer to remove to them, it certainly will not pay him to labor in a divided field.

FOUL BROOD.

I am pained, but not very much surprised, to hear that this most dreadful

of all our enemies is at work among you. I think you will remember seeing something from my pen in regard to the great caution we should use when purchasing bees from different parts of the country. I have no doubt but that you got your start in this dreaded scourge from some *imported* queen and her attendants. I have always used the greatest care when opening communication with other apiaries. In fact, I have done but little importing from other bee-gardens, just through my caution in this respect. One remark in your letter induces me to say, that there has never been a cell of foul brood in this vicinity. I will pay \$100 to any committee who will find a cell of it among my 500 colonies. My motto is, "An ounce of prevention is worth a pound of cure." If I had it to cure, however, I should purify by cremation, as I am not posted in regard to any other effectual method.

I hope your Convention will become wise, both in prevention and cure. I feel that you may be working for me against the day I may find it here. I am determined to postpone that time as long as possible, and to that end I have dissuaded all bee-keepers in this vicinity from promiscuously purchasing bees from other apiaries. JAMES HEDDON.

Dowagiac, Mich.

The following essay was read on

Foul Brood:

Having been called upon to give my views and experience in regard to foul brood, and being requested by brother bee-keeper whose apiaries are attacked by this most dreadful of all diseases the bees are subject to, I will endeavor to comply with their requests. If not arrested in time and cured radically, this evil will spread over all the surrounding country, wiping out of existence thousands of colonies. The worst of it is, that in all places where this disease appears, bees brought from a distance, not affected, are just as liable to have it, even if you have killed and burned your affected bees, comb and honey. If you wish to rid your apiary of this evil by cremation, you will not only have to burn your bees, comb and honey, but all your hives, too, your implements, your clothes, in fact everything having been carried, worn or handled in an affected apiary.

Experience in Germany, as well as in this country, has convinced others, as well as myself, that this disease is contagious in the highest degree; further, that all means, medicines and chemicals employed failed to cure it, up to a very recent date. The most extreme measures were adopted to eradicate this evi



by burning hives, bees, implements and all ; still, after a year or two, the disease would make its appearance again in the same yard. The medicines used were of such a nature as either not to arrest the disease at all in its progress, or to kill bees and brood.

As I have said before, this practice of cremation has been in vogue in Germany up to a very late date, until finally the true nature of the disease was discovered, and at the same time the remedies and methods of successful treatment to combat the malady were introduced. I am proud to say that this was done by my countrymen, and I take the liberty to mention the names of some of the leading men who have contributed so much toward conquering this dreadful plague. They are Schonfeld, Kolbe and Hilbert. Schonfeld discovered the true nature of the disease ; Kolbe discovered the remedy, and Hilbert the method of treatment.

Now, what are the remedies, and what is a proper course of treatment, and what is the nature of the disease ? To spend much time in answering the last question I consider useless, for I suppose that progressive bee-keepers, which I take you to be, will get all the information possible through the press, taking and reading carefully bee journals and books on bee culture, some of which contain concise instructions in regard to the nature of the disease. Suffice it to say, that it is a process of putrefaction induced by the presence of bacteria, a low form of animal life pervading the honey and stomach of the bees, the germs of which are so small that the slightest whiff will carry them not only from one hive to another, but from one apiary to another. Short as this answer is, it will probably be satisfactory, at least to the average bee-keeper, who very likely does not care, nor has the patience to listen to a lengthy scientific exposition of the whole subject.

The nature of the disease indicates the remedies. All antiseptics, remedies which arrest or prevent putrefaction, are employed, some in certain cases where others will not do. Such antiseptics are the following : Salt, alcohol, sugar, soda, arsenic, thymol, phenol, salicylic acid, and others too numerous to mention. Some of these, and others not mentioned here, have been employed to cure foul brood. The properties of such remedies must be of a nature to be certain destruction to the bacteria and their germs, and harmless to bees and brood.

Any chemical having this property, either singly or in combination with some others, is good. Some of

these you will have found recommended in books and bee journals as a sure cure for foul brood. Now, some claim success with one, by the use of which another has failed entirely. Why this difference in success ? I will answer this question by proposing another : Why are some bee-keepers successful as honey-producers, while others make a total failure of it ? It is the method they pursue, and some follow no method whatever. Still, to lay down a certain rule, a course by which to succeed in bee-keeping, is an impossibility, as the method has to be varied according to circumstances. To further illustrate : Neuralgia is a disease of the nerves, and a most painful one as I happen to know. The remedies are aconite, arsenic, belladonna, quinine, salicylic acid and numerous others. Hence, "What is one man's meat, may be another man's poison," which proves that it requires a man well versed in the different methods of treatment to choose the right, and also proves that it is quite impossible to lay down a certain course to be followed in curing foul brood ; especially as you are well aware there are two distinct types of this disease, which require a judicious and different treatment in the different stages of the disease and the malignancy of each case.

Burning the visibly affected colonies would not be of much avail, for the rest of the colonies, or some of them, may have come in contact with germs, though the disease is not discernible to our senses, not having had time or the proper condition to make its spread in the hive, and one colony after another will succumb and have to be burned, until the whole apiary is "cleaned out." The curative method not only arrests the disease in affected colonies, but prevents its spreading to others. This cannot be done by the annihilation of those diseased, for reasons given already, but by a proper treatment of *all* the colonies, whether affected or not.

Certainty of success can only be expected of such as have made this a special study. Nevertheless, as far as I am concerned, I know that if a colony is not too much reduced in numbers, success in curing the disease is not only possible, but certain, without sacrificing too much of the apiary.

ALBERT KOHNKE.

Dowagiac, Mich., Sept., 1880.

After some further discussion, the meeting adjourned.

B. SALISBURY, Sec.

☞ We are prepared to supply all new subscribers with the numbers from January when it is so desired.

North-Western Bee-Keepers' Society.

Pursuant to a call in the AMERICAN BEE JOURNAL, the bee-keepers of the Northwestern States met in convention at Parker Hall, Chicago, on Tuesday morning, Sept. 14, at 10 o'clock, Mr. A. Rice, Byron, Ill., in the chair.

At the request of the chairman, Thos. G. Newman, of Chicago, stated the object of the meeting to be to consider the advisability of permanently organizing a general society of bee-keepers of the Northwestern States, and to hold annual conventions in Chicago each fall.

After favorable remarks from several, Messrs. Thomas G. Newman, Chicago, T. S. Bull, Valparaiso, Ind., I. R. Good, Napanee, Ind., A. J. Hatfield, South Bend, Ind., and H. W. Funk, Bloomington, Ill., were appointed a committee on permanent organization.

On motion, the membership fee was fixed at 75 cents.

The following paper was read on the

Foreign Demand for Honey, etc.

I intended to have been with you, but uncontrollable circumstances prevent. I am sorry, for I feel new enthusiasm in our pursuit, as a producer of honey; the more so, because of the new foreign outlet for our product. This demand, though not high-priced, is of sufficient magnitude to save us in times of large productions at home.

A bee-keeper now in my employ, who has been a producer in Germany, and traveled extensively throughout the Old World, assures me that the foreign demand will take care of all the honey we can produce for many years to come, and that, too, at paying prices; that the Old World does not compare with our country as a source for our product, and that honey sells at much higher figures there than here. These facts encourage us to put our capital and energy into the business.

I hope your association will not fail to thoroughly discuss the subject of over-stocking the field, and the necessity of each producer enjoying a field or range exclusively to himself. I consider this a vital element of success. None can succeed in a divided field, as special producers. While "competition is the life of trade," opposition is the death of bee-keepers. Opposition in the field is not only bad for those so opposed, but for the consumers of our product as well. The easier we can produce honey, the cheaper can we afford to sell it.

Let us have harmonious and united action in the direction to oppose and counteract all movements to "bear" the honey markets. In my best judgment,

these issues are of fully as much importance as the discussion of the best methods to be employed in accumulating a crop.

I shall look forward with impatience for a report of your meeting.

JAMES HEDDON.
Dowagiac, Mich., Sept. 13, 1880.

T. G. Newman rejoiced with the writer in this foreign outlet for our over-production. He had long foreseen it, and had labored assiduously in England and on the continent to remove prejudices, and establish a confidence in and demand for American honey, and he could but congratulate Mr. Heddon on the removal of his former fears regarding the over-production of honey. He thought, too, Mr. Heddon's views in regard to over-stocking would in a great measure be modified in the future.

Dr. C. C. Miller, Marengo, Ill., wanted an expression of the Convention in regard to what might be considered over-stocking a locality. Owing to the absence of honey in white clover he had not only gained no increase, but had doubled-up his colonies to a great extent. As fall approached he moved part of his apiary a distance of $2\frac{1}{2}$ miles; about this time a field of buckwheat came into bloom near them, and they had nearly filled their brood chambers.

George Thompson, Geneva, Ill., said the question of over-stocking depended altogether upon the honey bloom.

H. W. Funk inquired how many bees could be kept in one locality, supposing there was 80 acres of white clover to each square mile of territory?

Dr. C. C. Miller thought that white clover alone would yield but little profit to the bee-keeper, as the time for honey-gathering was so limited, it would be mostly consumed by the bees during the remainder of the year.

G. W. Naftzger, South Haven, Mich., suggested that during basswood bloom, in his locality, over-stocking would be an impossibility.

A. Rice said honey gathering depended on the condition of the bees. Some strong colonies would have 50 lbs. surplus, while weaker ones would get nothing.

C. B. Fish Bangs, South Haven, Mich., suggested that bees and humanity were similar: some colonies would do well, others done but poorly.

T. S. Bull was of opinion all depended on the honey secretion.

Dr. C. C. Miller had observed this season, when white clover was in fresh bloom the bees did not work on it, but as the blossom became older, apparently going to seed, they did so.

I. R. Good thought a good locality



could not be over-stocked; for the nectar flow was continuous, and the secretion constantly going on.

G. W. Naftzger was of the same opinion.

C. B. Fisk Bangs has found that full colonies would not gather honey where there was no honey to be obtained. He believes in planting a variety. It is possible for the bee-keeper to keep his bees busy and prosperous the whole season, by a judicious system of planting to supply the deficiencies in the spontaneous bloom.

At this time, G. M. Doolittle, Borodino, N. Y., was introduced to the Convention by T. G. Newman. In response to inquiries regarding the comparative merits of white clover and basswood as honey producers, he said the bees commenced work on the former in the morning about 10 o'clock, but they worked on basswood from daylight till late at night. It is necessary to keep hives full of brood, to secure a large yield of surplus honey.

Convention adjourned till 1:30 p. m.

Afternoon Session.

In the absence of the chairman *pro tem.*, Dr. C. C. Miller was called to the chair.

T. G. Newman read a communication, entitled

Introduction of Queens to Strange Colonies.

Brethren: My fondly anticipated hope of meeting with you in the District Convention is blighted by unforeseen circumstances.

In this world of casualties, our aims often fall, blighted to the ground; so with the practical part of this subject, fondest hopes are often lost, and melancholy fills the mind. But on the arrival of the next *BEE JOURNAL*, some perfectionist gives a never-failing rule, and cheers the heart until practice demonstrates that the theory will not hold good under all circumstances.

Three things should be observed in the introduction of queens to strange colonies of bees:

1. The instinct of the bee.
2. The season of the year when the work is to be done.
3. The age of the bees who are to receive the queen.

The strongest instinct of the bee is, aside from the love for storing honey, to replace the loss of a queen from resources in their own hive. This is in keeping with the first law of nature—self-protection—and all outside intrusion is discarded. To protect the life of the queen to be introduced, as a rule, she must be placed in some kind of a cage until the natural instinct of the

bee to supply a lack from resources on hand dies away, which is sometimes sooner and sometimes later; but as a rule, with the capping over of the royal cells, when they seem to anticipate a queen to supply the place of the one lost. She may generally be released then with safety.

The time in the year when the work is to be performed has much to do with success. Late in the fall and early in the spring, after the vital forces of the bees seem lulled to quietude, by age and inactivity, the work of the hive being suspended, and not quickened into life by the unfolding flowers and sweet nectar of an anticipated summer, queens do not have to be caged long, as a rule, and sometimes may be released at once.

The age of the bees receiving a queen makes a difference in the manner of her reception. A colony long deprived of its queen, will receive one soon or reject her entirely. In the latter case they will generally accept a virgin queen that has just emerged from the cell.

Virgin queens may sometimes be given to a colony of bees with success, where a very old, superannuated queen is the incumbent. They receive her and let the old queen live, on the same principle that bees will build royal cells and supply the hive with a new queen while the mother queen is still alive, and sometimes lives for months doing duty with her daughter.

No plan has yet been devised, to my knowledge, for the safe introduction of virgin queens to strange bees, except the one so natural, simple and easy: wait until the bees are looking for the young queens to make their appearance. Queen cells should be built in time, so that the queens to be introduced are in advance, and all will be right; give them to the colonies and afterwards destroy all royal cells. If the young queen makes her appearance before the one you wish to introduce, change the queens, and as a rule she will be accepted, unless the one removed has been fertilized.

A. SALISBURY.

Camargo, Ill., Sept. 13, 1880.

After considerable discussion on the subject of introducing queens, without eliciting any new methods or arriving at anything absolutely certain, the question of comb foundation and its uses was taken up for discussion.

I. R. Good said he had experienced considerable trouble in using Novice foundation: it sagged very badly, broke down and warped. Last spring he purchased a Given press, and now has several hundred beautiful, straight worker combs, in wired frames, in use. It was all that had been claimed for it, and he

did not think there was any better now in use.

G. M. Doolittle's experience with foundation was unsatisfactory. He had tried several kinds, and the Dunham was perhaps the best; in the earlier portion of the season it sagged badly, but later in the summer it did not sag at all; has had colonies fill hives full of comb when they were gathering no honey. As to wired foundation, he did not think there was any manufactured he would be willing to use; has seen it built out, and the cells over the wires would have the bottoms covered with the remains of larvæ which had hatched and died, and again the queen would deposit eggs only to hatch and die. In fact, he was not convinced it was economy to use foundation to any great extent, as it was paying out money for that which the bees would themselves supply when it was needed.

Dr. C. C. Miller had used considerable foundation; had tried thin foundation in surplus boxes, and been pleased with it; he did not observe any "fish-bone," and had never heard any complaints.

A. Rice said that he would never use foundation in the sections: he had seen old, filthy combs melted into wax, and that wax was manufactured into foundation; he would not eat it, and would not put upon the market, for others to consume, that which he could not himself eat.

T. G. Newman vigorously protested against the use of comb foundation in the surplus boxes; for use in its proper place (the brood chamber) he thought it a great invention.

Mr. Doolittle said he had used foundation in the sections, but prefers starters of natural comb. The bees will build natural comb during a good honey flow, and fill and cap it, as soon as they will build out and fill foundation.

An inquiry was made, whether anything could be gained by feeding extracted honey back to the bees, to be stored in the boxes?

Dr. C. C. Miller has tried it, but cannot express an opinion.

H. D. Burrell, Bangor, Mich., thought it had paid him.

George Thompson, Geneva, Ill., has accomplished it, but thought it did not pay. He poured the honey in the bottom of the hive.

T. S. Bull had fed back till he became tired; he thought there was nothing gained by it.

It was suggested that in feeding back for the purpose of storing in the sections, the brood frames should be filled with sealed brood or be free from larvæ.

A. Rice said the feeding should be

done while they were storing above, and not when they were carrying down for winter.

G. M. Doolittle said it could not be done profitably. He had fed 400 lbs. to get less than 75 in the sections; his neighbor, Mr. Betsinger, had fed 80 lbs. and received back 15 lbs.

H. W. Funk inquired what became of the honey fed back, if not stored?

G. M. Doolittle said his bees would hang around the feed pans and live out of them, but done no work.

Dr. C. C. Miller asked what could be done with partly filled sections, at the close of the season?

G. M. Doolittle said the most profitable use he could put them to, was to give them to colonies that were short of winter stores.

An inquiry was made whether tin separators were necessary to insure straight combs in sections, and if they were not a detriment to the bees?

Mrs. F. Dunham suggested 3 narrow tin strips instead of a single broad one.

Dr. C. C. Miller thought broad tin separators a detriment; he had used wires stretched back and forth, but they were troublesome, and were unsatisfactory in their results; perforated tin might answer better, provided the holes were not too large—say, $\frac{1}{4}$ of an inch.

The Committee on Permanent Organization reported the following Constitution, which was unanimously adopted:

Constitution.

ART. I.—This Association shall be known as the Northwestern Bee-Keepers' Society.

ART. II.—The object of this Association is the promotion of scientific bee-culture, by forming a strong bond of union among bee-keepers.

ART. III.—The officers shall consist of a President, Vice President, Secretary and Treasurer, whose duties shall be those usually assigned to such officers, and their term of office shall be one year, or until their successors shall be elected.

ART. IV.—By signing the Constitution and paying to the Secretary the sum of 75 cents, annually, any person may become a member of this Society.

ART. V.—The regular meetings of this Society shall be held at Chicago, annually, while the Exposition is open.

ART. VI.—Special meetings may be called by the President and Secretary, who shall constitute an Executive Committee.

ART. VII.—The officers of the Society shall be elected by ballot, and shall constitute a committee to select subjects for discussion and appoint members to deliver addresses and read essays, and



the same shall be published with the call for the next annual meeting.

ART. VIII.—This Constitution may be amended by a two-thirds vote at any regular meeting.

Mrs. Frances Dunham, Depere, Wis., was unanimously elected an honorary member, in recognition of her valuable invention.

On motion, the Society proceeded to ballot for officers for the ensuing year, with the following result:

President—Dr. C. C. Miller, Marengo, Illinois.

Vice President—Mrs. F. Dunham, Depere, Wis.

Secretary—C. C. Coffinberry, Chicago, Illinois.

Treasurer—Thomas G. Newman, Chicago, Ill.

The President suggested that questions be propounded for discussion, and to give opportunity for comparing practice, with the reasons therefor.

Mrs. F. Dunham inquired if queens were not more liable to be superseded from having their wings clipped? She had lost several in this way, and attributed it to the clipping of their wings.

H. D. Burrell had practiced clipping the queens' wings, and could not see that it made any difference; he should continue the practice, to save his valuable queens and the bees.

G. M. Doolittle would as soon think of returning to black bees and box hives, as to abandon the practice of clipping the wings of the queens.

H. W. Funk would clip their wings to save the queens as well as the bees in cases of swarming.

George Thompson assigned a similar reason; he can always find a clipped queen in the grass, from the presence of bees in her vicinity.

T. S. Bull would not clip any more, because he had lost several queens in swarming time, and the bees always became demoralized.

A vote being taken, the practice of clipping was largely sustained.

T. G. Newman stated that he had perfected arrangements, whereby he could procure tickets for those desiring to attend the North American Bee-Keepers' Convention, in Cincinnati, from Chicago and return, at \$12, instead of \$18, the regular fare for the round trip.

Adjourned till 7:30 p. m.

Evening Session.

A. J. Hatfield inquired whether it was desirable to shade the hives, and to what extent?

After considerable discussion, the opinion prevailed that a complete shade

was undesirable; but that during the extreme heat of the day a shade was quite beneficial.

M. A. Newman, Collins, Ill., inquired as to the value of red clover as a honey plant.

G. M. Doolittle said one season his bees secured about 500 lbs. of fine comb honey from red clover; he thinks if it could all be reached by the bees, the red clover would prove to be the richest honey plant we have. There are two kinds of red clover; his bees work on the large red clover better than the smaller variety.

T. S. Bull remarked that his bees worked very briskly on red clover last spring; he saw no difference between the black and the Italian bees in regard to gathering honey from it.

G. M. Doolittle's Italian bees sometimes stored surplus from red clover, while the blacks were consuming their surplus stores.

President Miller suggested that perhaps by pasturing red clover closely a species of clover might be produced, with shorter corollas, from which bees could obtain all the nectar.

A. J. Hatfield inquired as to the best manner of arranging surplus boxes. He found that the bees do not fill out the boxes so nicely when placed below as those above.

President Miller has had the same experience.

G. M. Doolittle said he never allows the boxes to remain below till finished; they build out the comb faster below. He starts the bees in the surplus boxes at the sides, then carries them above to replace the boxes filled and removed, and puts in empty boxes below again.

President Miller inquired, "What shall we plant for bee pasture?"

C. C. Coffinberry was convinced, after several years of close observation, that melilot clover and large mignonette would well repay cultivation for honey; they were early bloomers, and among the last to succumb to the winter frosts; every bee-keeper should have the waste places, within reach of his bees, well seeded with them, to bridge over the bloomless period between spring and fall flowers; in fact he was not certain that they would not prove equal to white clover when the latter was in its prime. Catnip and motherwort would also well repay any expense and trouble which might be expended upon them.

Several persons heartily endorsed all these plants as good honey producers, and especially melilot or sweetclover.

G. M. Doolittle could heartily recommend motherwort as a honey plant.

Convention adjourned till 9 a. m.

Wednesday, Sept. 15—Morning Session.

Convention was called to order by President Miller.

A. Rice inquired if, in introducing a queen she escapes from the hive or cage, will she return to the same?

George Thompson thought she would always mark and return to the spot from which she escaped.

A. Rice introduced about 70 queens the past season. One escaped while he was placing her on a comb. Afterward, on opening the hive, he found the queen had returned, entered the hive, and was industriously depositing eggs.

C. C. Coffinberry had introduced several hundred queens, and they had frequently escaped, but invariably returned to the starting point. He thought it safe to say queens would always return to the point from which they escape, unless overtaken by disaster. It is very desirable that the surroundings remain unchanged until her return, and especially the person handling her, as he is frequently the most prominent object she notices in her rapid survey.

H. D. Burrell inquired if fertilization in confinement, on Prof. Hasbrouck's plan, had proved a success?

T. G. Newman, in response to this query, read the following from the Rev. M. Mahin, D. D., as pertinent to the subject:

Fertilization in Confinement.

A year or two ago the above topic was somewhat prominent in the publications in the interest of bee-keeping. I presume that the silence of the present time arises from the fact that the writers have nothing favorable to report.

When the matter was first brought to the notice of the public, I was among the doubters; but within a year or two I became a convert to the doctrine that queens might be impregnated certainly, safely and economically, on a plan similar to that reported by Prof. Hasbrouck. I confidently expected—well, somewhat confidently—that I would be able during the present summer to rear queens from some of my very fine Italian colonies, and to have them mated with selected drones from others, and that I would have a lot of bees a little ahead of any in the country. But, alas for human expectations! my queens and drones would have their own way, or they would have no way at all.

I made a box 10x10x12 inches. In the center of the tight-fitting cover I made a hole 3 inches in diameter, and covered it by a glass on the under side extending beyond the edge of the hole all around. When my young queens were 3 or 4 days old I caught and caged them, leaving

them among the bees until the sixth day. Then, a little after noon I put the cage and queen into my fertilizing box, and opened the cage so that the queen could come out at her leisure; then caught a drone and put him in. It was easy to get the queen and the drone to fly at the same time, and to fly in close proximity to each other; they would even jostle against each other. But for any practical purpose, one might just as well have been in Greenland and the other at Cape Horn. One sole purpose seemed to possess them, and that was to get out of there. Day after day I experimented with one drone at a time, and with half a dozen, but always with the same result. I lost several young queens in the course of my experiments, and did not get one fertilized on the improved plan. In one case I made a cage the size of a frame, only shorter, and closed up the spaces between the frames so that the bees could not get up into the cap or upper story. I opened the cage about noon so that the queen could go above, and put in a few fine drones, covering the upper story with a board having a window in it. In a little while the queen came out, and she and the drones flew nicely, but they utterly ignored the purpose for which they were put there. The conditions were the most favorable that I can conceive, and yet every effort was a flat failure, and my opinion is that those who think they have had queens fertilized in confinement have drawn upon their imaginations for facts. My bees will not mate in confinement, and they seem to be just like other bees.

I very deeply regret the failure; I intended, if I could have succeeded, to settle beyond dispute, one way or the other, the question whether the drone a queen mates with has any influence upon her drone progeny.

Huntington, Ind., Aug. 25, 1880.

T. G. Newman said the advantage of having queens fertilized by selected drones, from choice colonies, was so great that he had especially desired that a successful and easy plan to accomplish this might be discovered, but at no time has his faith in it been "greater than a grain of mustard seed." Many plans have been tried, but without success, by prominent apiarists all over the country, as well as at the BEE JOURNAL apiary; and much as he desires to have it successfully accomplished, he fears it is a sad failure. If it could be done, it would be one of the greatest achievements in modern bee-culture, and the apiarist could breed races of bees that would answer every requirement and gratify any fancy.



A. Rice stated that a neighboring bee-keeper had a wingless queen which became fertilized in some manner, but in what way he did not know.

Several questions relating to wintering being propounded by different persons, the President submitted a test vote, in order to get an expression of preference between the cellar and out-of-doors. The vote was about equally divided.

E. J. Oatman, Dundee, Ill., being called up, said they had tried several plans. Their first experience was under the rules as laid down by N. C. Mitchell in his circulars; they had labored under the impression that a warm, close, quiet and absolutely dark cellar, were necessary essentials in successful wintering; but they had found that with healthy bees light was essential to safe wintering. They had tried feeding in the cellar in February, and lost nearly all their bees. Of late years they have tried several styles of wintering, both in cellar and out; last winter they packed mostly on the summer stands; those packed warmly and fed in February, bred up too soon, and spring dwindling largely prevailed; but those not fed done nicely, and had the season been propitious, would have given a large surplus. This winter their bees will all be packed out of doors, in tenement packing-boxes. These tenements are so constructed as to hold 4 hives each, 2 facing one way and 2 at their rear facing the other, with straw or chaff packing in and around them. This season the white clover and other honey plants have failed in their secretion, and he could not report one pound of surplus honey.

C. W. Naftzger inquired if they had stimulated moderately, Mr. Oatman did not think they would have done much better.

Mr. Oatman replied he did not; they have abandoned spring feeding entirely, and he thought they had lost more bees from that cause than in any other way.

A. J. Hatfield tried both plans of wintering; part in the cellar, and part outdoors packed around with hay. Those put in the cellar came out strongest in the spring, but dwindled away very bad in the earlier part of the season, while those packed on the summer stands built up rapidly, and have given much more surplus honey.

T. S. Minier, Oak Park, Ill., practiced out-door wintering, and had lost only 2 out of 44 colonies; he had observed that those colonies put away without pollen in the brood frames did not build up so rapidly in spring as those with a plentiful supply.

I. R. Good wintered 67 colonies outdoors in chaff-packed hives, and had lost none; he should continue to winter in the same manner, and did not anticipate any loss this winter among more than 100 colonies.

T. S. Bull had always been successful in cellar wintering.

A. Rice recommended the following as the cheapest, most successful and easiest constructed winter protection: Select a wall or plank fence that will give the hives a southern or southeastern exposure, then place the hives about one foot distant; pack behind and over with hay or straw, letting the packing come down well in front to completely shade the entrance, so the bees will not be enticed out to destruction by the sunshine in winter; when all are neatly and snugly packed away, cover over with a shed roof, with the ends of the boards projecting beyond the fronts of the hives, to prevent the snow and rain from beating in.

C. B. Fisk Bangs said Mr. Rice had exactly described his method of wintering. He had lost only when wintering in the cellar.

George Thompson wintered successfully in the cellar, and had no desire to change.

President Miller impressed upon all, whether wintering in cellar or packed in chaff, the necessity of good ventilation and plenty of fresh air.

On motion, T. G. Newman was appointed a committee to collect statistics of number of colonies represented, surplus honey produced, amount of increase, manner of wintering and per cent. of loss.

H. W. Funk inquired, "How do we know that it takes from 15 to 20 lbs. of honey to build 1 lb. of comb?" Considerable discussion was indulged in without eliciting anything definite.

E. J. Oatman said he had experimented by feeding sugar, and ascertained he could have combs built out and filled with brood at a cost of 12½ cents each.

A. J. Hatfield asked if straight combs could be obtained in surplus boxes without the use of separators?

H. D. Burrell could not get straight combs without using separators. He did not think tin separators any impediment to the bees.

C. W. Naftzger has had no difficulty in obtaining straight combs without the use of separators; he regards them as wholly unnecessary in producing honey for the market.

Considerable discussion was indulged in, and opinion was divided about equally in regard to their use.

President Miller inquired if bees could be moved short distances successfully, in flying time, by putting a board in front of the hive?

The question was answered affirmatively by many.

T. G. Newman introduced Signor Mihl, a Spanish gentleman, to the Convention, who proceeded to give a graphic description of bee-keeping in the Old World. In Spain but little progress has been made in scientific bee-culture; the most primitive hives are still in vogue, and native black bees, similar to the black bees in this country, are the only ones kept. When surplus comb honey is obtained, it is done by inverting earthen jars, and small wooden boxes similar to those formerly used in this country, over the hives; but a movable frame hive is unknown there, as is also comb foundation, and, in fact, all the implements and improvements in use in this country; the honey obtained there is much darker than ours, but is of good flavor; in the Guadalajara district, where the rosemary grows spontaneously and very abundant, is produced the best honey, which ranks in the Madrid market about as does our honey from white and sweet clovers and linden in the American market; it is not so white, and the general appearance is not nearly so attractive, but the honey is very fine and commands a ready sale. France is more progressive than Spain, and in Bordeaux and other cities there are schools of instruction in bee-keeping. Mr. Mihl had visited but little with the apiarists in this country; he had spent some time with Messrs. L. C. Root & Bro., and was astonished with the quantity and quality of honey they obtained, although they informed him it was not a good honey season. Why, in Guadalajara 75 to 100 lbs. is a large yield of "strained" honey from 1 colony. Mostly all the Spanish honey is strained, the combs being mashed and the honey is pressed or squeezed through cloths.

T. G. Newman, special committee on statistics, made a report. Many of the larger producers were not in at the time of its collation, but the result of those present was as follows:

No. of colonies now	1,734
No. of colonies in the spring... —	1,338
Increase	396
Comb honey produced, lbs....	10,780
Extracted " " "	35,578
Total honey "	46,358

The crop thus reported was an average of 34½ lbs. per colony in the spring. Six persons only reported no surplus for the season.

Those wintered in the cellar, 792; packed in chaff, 603; without protection, 43. The loss in wintering was 7 per cent.

Mr. Messimore inquired if it was known to a certainty that the drone progeny of a pure queen, mated, will be pure?

No one could give a positive answer from experience.

Adjourned till 1:30 p. m.

Afternoon Session.

H. D. Burrell inquired if cider was detrimental to bees, and will they work around cider-mills to the extent of injuring themselves?

President Miller thought they would.

A. Rice has a bee-keeping neighbor who owns a cider-mill, and who usually is obliged to re-stock his apiary each spring.

George Thompson said there could be no doubt of the injurious effects of cider-mills upon bees located in their vicinity.

T. G. Newman read the following paper, as pertaining to the subject of the "Best Business Bees":

How can we Improve our Bees?

How can we rear the best "business bees?" Only by producing the *best* queens and *best* drones possible, from the *best* colonies we have or can procure. We must take as much pains in rearing queens and drones as the breeders of different kinds of fine stock do in the selection of choice animals to breed from. I confidently expect, in a few years, to see strains of bees far superior to any we now have. The main point is in breeding queens. We cannot get the best queens from larvae one day or one hour old, for then they will get some worker food. They must have royal food from the time they hatch, so I would give the bees eggs at least 6 hours before they hatch, so that cells will be started and plenty of royal food be put into them when needed.

Eighteen years of observation have shown me that workers reared in the swarming and honey-producing season, are better developed and more perfect than earlier or later, and so it is with queens and drones. We can get the bees to give a limited number of cells that close attention which they usually give 2 or 3 of the first ones, when getting ready to swarm naturally, in a full colony of our best bees, in 2 or 3 months of the swarming and honey-producing season; and neither before nor after that season can we, by any pains that we may take, rear as perfect ones.

We cannot rear best queens in colonies of blacks, but must rear them in



colonies that do their work the most thoroughly—our best ones.

We cannot rear best queens by giving the cells, as soon as sealed, to small nuclei to hatch, that cannot keep up the necessary heat to fully develop them; but must hatch them in full colonies. They should be fertilized in full colonies, as they will fly out sooner than from weak ones, and the sooner they are fertilized, the more prolific they will be.

To get best drones, we must rear them from our best queens, near the center of the brood nest, so that they will have all the care and heat necessary.

Colonies of best bees give robbers the "cold shoulder." Such colonies work here in California in our poorest and dryest seasons, during all the fall, keeping their hives full of brood and honey, and not trying to rob others; while common ones are growing lighter, trying to force themselves into other hives, and many of them starving. Such best colonies will winter in cold climates, almost any way, without spring dwindling; in such colonies the age of the queens will be from 3 to 4 years, instead of the short life which is the rule with common ones. Who will give us the best business bees?

S. S. BUTLER, M. D.
Los Gatos, Cal., Aug. 25, 1880.

E. J. Oatman was of opinion that queens would fertilize as soon from nuclei as from full colonies.

President Miller and others held the same opinion.

E. J. Oatman had purchased 2 Palestine queens; 1 died; the survivor is very prolific; aside from prolificacy, Mr. Oatman could give no opinion of their merits.

I. R. Good has a "holy" queen, which is the most prolific queen he ever saw.

George Thompson has one, with the same characteristic.

I. R. Good said he had reared about 40 queens from his Palestine queen, and all were nearly perfect duplicates of the mother queen.

E. J. Oatman stated his queen did not duplicate.

In response to a question as to which is best for the amateur—artificial or natural swarming—the Convention by vote recommended artificial swarming.

A test question being submitted, the Convention unanimously disapproved of wired foundation sheets; a vote being then called for upon the desirability of foundation wired in frames, it was decided in the negative.

President Miller inquired the best method for finding queens in full colonies; he had frequently experienced

trouble from their rapidly passing from one comb to another.

Several speakers recommended commencing the search on a center comb.

The following communication was received and read:

To the Bee-Keepers of the Northwest, in District Convention assembled, the Michigan Bee-Keepers' Association sends greeting:

May your salutations be honeyed, your deliberations candied, and waxing warm in debate may your foundation not sag, but support firmly and spread freely the bee-bread of fraternal sympathy and brotherly love.

T. F. BINGHAM, Sec'y.

On motion, the Convention adjourned subject to the call of the Executive Committee. C. C. MILLER, Pres.

C. C. COFFINBERRY, Sec.

LaCrosse Bee-Keepers' Convention.

The Northwestern (Wis.) Bee-Keepers' Convention was held at LaCrosse, Wis., Tuesday, Sept. 14, 1880.

The meeting was called to order by the President, John A. Zalser, at 10 a.m. After reading and approving the minutes, a constitution and by-laws were adopted, and the following officers elected for the ensuing year:

*President—James Manchester.
Vice President—E. Markel.
Secretary—L. H. Pammel, Jr.
Treasurer—John A. Zalser.*

B. F. Bryant of LaCrosse, then delivered the following

Opening Address:

The honey bee has been the companion and servant of man from the very earliest times, accompanying his wanderings and ministering to his comfort and enjoyment. Scarcely tamer now than in its wildest state, it bears the yoke of servitude more lightly than any other creature, and is beholding to man for hardly any thing but shelter. Obedient only to its instincts and habits, no servant was ever more faithful and trusty. Incapable of instruction it is in some respects the most intelligent of the beast or insect creation. Capable of being the subject of ownership, and of a bargain and sale, its master could hardly be made responsible for its acts.

The honey bee is a great trespasser, and has no respect for fences and boundary lines. It gathers its food wherever it pleases and enriches its owner out of other peoples' property

without impoverishing or diminishing the property of any one.

A wonderful mathematician and architect is this little insect. If it accepts shelter from man, it yet builds with method and exactness its own house and store-house, and furnishes its own materials. Almost all of its actions, apparently, are governed by unvarying rules, and in its travels, whenever it chooses to, it pursues its ways along a straighter path than birds or other insect ever took. The carrier pigeon makes a wonderful flight through the air, finding its way back to its home, from distances very remote, and over unfamiliar route. No bee, or insect, or other bird can accomplish such a feat, and yet the path of the carrier pigeon is not straighter than other birds can take, but who ever heard of a bird-line, or a bug-line. It is only the "bee-line" which has come to be in common speech the synonym of unvarying directions.

We are greatly beholding to the animated, irrational creation. Food and clothing it furnishes us, comforts and luxuries also; ivory and pearls, and beautiful firs and feathers. The fish, the beast, the bird and the insect minister to our wants and gratify our tastes. But all these, except the productions of the honey bee require skill and labor to make them serviceable. The honey comes prepared for instant use. It has been distilled by a more delicate and perfect process than any laboratory has ever provided. It has been stored in a permanent and economical way, and the case in which it is enclosed has a value beyond its primary use.

Full of wonder as well as of use are this little insect and its productions. It is not strange that the wise and learned have patiently studied its habits and its organization, and that a literature, full of curious and valuable information, has grown out of their researches, now that poets and moralists have wrought into their fancies and sentiments the images and lessons drawn from its habits.

Any thing which may increase our knowledge of the honey bee and its ways and methods of work and employment, or aid in increasing the amount and quality of its productions has real and permanent value. And an association which brings the bee-keepers of a community together, and diffuses useful knowledge with respect to their calling, deserves to be promoted.

The members reported for 1880 less than an average honey yield. The report from 17 bee-keepers is as follows:

In the spring, 283 colonies; now, 547—increase, 264. Honey obtained, 8,500 lbs.—5,800 lbs. of comb honey, and 2,700 lbs. of extracted. The discussion of honey report occupied the remainder of the forenoon.

Afternoon Session.

An essay was read on Wintering Bees, by E. A. Morgan, of Arcadia, Wis.

[Owing to want of room we must omit its publication this month, but will give it hereafter.—ED.]

Nelson Perkins, Houston, Minn., wintered on the summer stands, but thought upward ventilation was necessary to winter successfully.

L. H. Pammel, LaCrosse, Wis., said upward ventilation was unnecessary; he had wintered very successfully without it for 3 or 4 seasons.

J. Peaty, LaCrosse, Wis., wintered in a bee house; always had upward ventilation, and lost very heavily through it.

Mr. Palley, Melrose, Wis., always wintered in a dry cellar, and never lost any bees, either through spring dwindle or dysentery.

E. Markel, LaCrosse, Wis., always wintered in a dry cellar; as nine-tenths of the bee-keepers winter in cellars, it must certainly be the best and cheapest way; as regards carrying the bees in and out of the cellar, he thought it must be cheaper than to pack them in chaff.

Louis Peters, Melrose, would winter in a dry cellar, and let his bees have an occasional flight on a very nice day.

Mr. Sprain, Barre Mills—Would it make any difference whether bees were wintered in a bed-chamber or bee-wintering house?

Mr. Whipple said it would not make any difference, if the chamber was dark.

Mr. Whipple, Shelby, Wis., would winter his bees in a bee-house with double walls, with a $2\frac{1}{2}$ inch space filled with sawdust; then leave the door open at night so that the dead air can escape.

Mr. Zoules, LaCrosse, wintered in a bee-house; used a double-walled bee house, with a dead-air chamber, and always kept his bee house dark.

Simon Klich, LaCrosse, would have such a bee hive that he could winter on the summer stand.

J. C. Kraemer, LaCrescent, Minn., turned his bee-hives from south to north, and left them on the summer stands.

Rev. O. Clute, Iowa City, Iowa, gave his consent for the Secretary to read his Chicago essay on "Increasing the Demand for Honey."

L. H. Pammel stated that we must do something to make honey a staple article, so that the poor man can enjoy its luxuries as well as the rich; for such a demand he thought extracted put up in



tin pails would be the best, and that every bee-keeper should warrant his honey as to purity. For comb honey, 1 and $\frac{1}{2}$ lb. sections are the most attractive, as the rich will pay $\frac{1}{2}$ for its beautiful appearance, and the other half to sweeten the palate; he also said Mr. Clute suggested something very wise when he said that the grocer should keep the honey in some conspicuous place.

The secretary then read his essay on the "Bee Forage of Western Wisconsin." [This article is also omitted for want of space; it will be published hereafter.—ED.]

Mr. Palleys said the Secretary made a mistake in saying that the hard maple was not very abundant in Western Wisconsin; some distance from the Mississippi, in the interior, the woods are heavily timbered with it; had tested the spider plant the past season, and found it to be an excellent honey plant.

Mr. Markel thought apiarists would have to plant for honey in the future, to make bee-keeping more reliable; he said it would be unnecessary where goldenrods and asters grow abundantly; but in his location he found it necessary.

Nelson Perkins found bees working very vigorously on hemp some years, when it blooms after Sept. 1st.

Wm. Lossing, Hokah, Minn., wanted to know on what soil sweet clover grows.

Mr. Perkins replied it does well on all soils.

Mr. Polley found bees working on box elder.

Question.—What foundation to use?

E. Markel said this was a question of great interest to bee-keepers; he had used the VanDeusen, and the bees would not work on it, while they would on the Dunham.

N. Perkins asked Mr. Markel whether he would condemn all foundation, from the fact that they would not work on the Van Deusen. He replied, no.

Mr. Polley said the bees accepted the Root and Dunham very readily.

L. H. Pammel found Dunham thin the best; had tried the Dunham thick but did not answer for all purposes as well as the thin. The Van Deusen his bees will not work, as they gnaw all the cells off and nothing remains but the thin shell of wax.

Mr. Zoules asked if there was any sagging in using foundation.

Mr. Markel said there was not with the Dunham.

Mr. Lossing stated there was no sagging when the thick foundation was used.

At 5 p. m. the meeting adjourned till 7:30 in the evening.

Question.—Does it pay to use an extractor in the apiary?

Mr. Perkins said it was one of the best things to secure strong and vigorous colonies and a large amount of surplus honey.

Mr. Markel thought it would be profitable to use the extractor, but there is so much adulteration in honey, it would be difficult to dispose of it.

Mr. Pammel said he has used the extractor with profit and in the future would run more for extracted honey. The producer would not adulterate it but he should be responsible for what he sells.

Mr. Polley thought every one should put it up in jars and label it.

Mr. Manchester asked Mr. Pammel if he could find a home market for his extracted honey. The Secretary said he found no trouble in doing so.

Mr. Perkins said he had created a home market for all the extracted honey he produced and that three times as much honey was used where he lived at the present time than nine years ago.

The following was then unanimously passed: *Resolved*, that we hereby tender our thanks to the citizens of LaCrosse for the use of their hall and the interest they manifested in the progress of this society; and to the press for their kind and appreciative notices.

The meeting then adjourned.

The following articles were on exhibition: by E. Markel, comb honey; by John A. Salzer, several kinds of extracted honey, an Everett honey extractor, and other implements for the apiary; by L.H. Pammel, the Gem double-walled hive and extracted honey; by S. Klich, a swarm-catcher: by W. Lossing, comb honey in sections.

J. MANCHESTER, *President.*
L. H. PAMMEL, JR., *Secretary.*

Southern Cal. District Convention.

At the suggestion of many apiarists, who think that a convention of those engaged in honey-producing should be held this fall, and believing that such a general meeting would materially advance the interests of this branch of industry in Southern California, I name the 20th and 21st days of October, 1880, at Los Angeles, California, as the time and place for holding such convention, that being during the session of the Horticultural and Agricultural Fairs. A cordial invitation is extended to all apiarists in the State, and to all who feel an interest in the science of apiculture.

C. J. FOX,
Pres. Dist. B. K. Association.

Letter Drawer.

Bee Pasturage.—When I last wrote you I expected some honey from fall flowers, but am disappointed; out of 31 colonies I will not get 1 pound of surplus. The season has been very unfavorable; I had but 2 swarms, both late; 1 is doing well, the other is in a starving condition, and I fear will not winter over. I think all but the one named will have sufficient for winter stores. I find we *must* make pasturage; we cannot depend on nature's voluntary contributions. In the early days of this section the honey product was enormous, but settlement and cultivation have destroyed the greater part of the natural bloom. I contemplate planting melilot clover, large mignonette, borage and motherwort.

F. A. GROVE.

Kirksville, Mo., Sept. 10, 1880.

Asilus Flies.—I send you to-day, by mail, a package containing 3 bee-killers. There are plenty around my hives and must destroy a great many bees. Please give name through the AMERICAN BEE JOURNAL. Two of the specimens are bruised some; but perhaps, the perfect one will be sufficient for name.

R. VAN DUSEN.

Palmyra, N. Y., Aug. 23, 1880.

[These insects are Asilus flies, but not *A. Missouriensis*. They are too much injured to be easily determined as the hair is all rubbed off. They are smaller than *A. Missouriensis*. I should be very glad to get some more in good condition.—A. J. COOK.]

Egg-bound Queens, &c.—I have at present an observatory hive with Italian bees, also extracted and comb honey on exhibition at the Mechanics' Fair, at San Francisco, which closes on the 11th inst. The hive has drawn a good share of attention; they have been there for 3 weeks in the building; I took them out every few days for a fly and they are very healthy. They have come 45 miles on boat, wagon and rail, and only one partly filled section got loose, and no bees were killed. The hive shows both upper and lower arrangement, bees, drones, &c. Seeing in the July and August numbers of the AMERICAN BEE JOURNAL, regarding queens being egg-bound, convinces me that I had a case. I noticed a very fine Italian queen with what I then supposed were the parts of the drone attached to the queen. I watched for eggs, to time her

laying. That queen still had the same appearance at the tip of the abdomen, even after 30 days had passed, until finally she disappeared and the colony got much reduced. She was in a 3 frame nucleus. Had I known in time, I might have saved her. She was a fine looking queen and came from good stock. I am sorry now that I did not examine her more closely at the time, but expecting that all would be right, I did not trouble her. I would like to get all the particulars about fertilizing in confinement. Several subscribers to the AMERICAN BEE JOURNAL are very much interested in this subject.

Napa, Cal., Sept. 10. J. D. ENAS.

[See article on Fertilization in Confinement on page 465 of this number of JOURNAL.—ED.]

No Sagging in Foundation.—Hearing so much said about the sagging of comb foundation, I have come to the conclusion that it is the fault of the one that uses it. I have used 30 lbs. this season and not one sheet has sagged. My way of fastening it, is to cut sheets so as to reach $\frac{3}{4}$ of the way down, then tack thin strips of wood over the foundation to the top-bar. I have never used any but the Dunham foundation, and could not say how other makes would do. Success to the AMERICAN BEE JOURNAL; I could not afford to do without it, and I think one copy is well worth the subscription price for a whole year.

J. F. MCCOY.

Van Wert, O., Sept. 16, 1880.

Report of a Beginner.—I have no cellar fit to winter my bees in, and shall winter them on the summer stands by packing with flax straw. I commenced last summer with a swarm I caught on the fence, put them in a common board box; wintered them in a box with opening at entrance of hive backed with straw; last March I bought 5 colonies in movable-frame hives; 1 died soon after I got them home and left 20 lbs. of honey and about a pint of bees; the other 2 gave 2 swarms each. My boxes are 10x14 inches, inside, 9 frames; the 2 first swarms have their lower stories full and are filling 12 boxes on top, of about 3 lbs. to 4 lbs. each; the last swarms have not quite filled their boxes below. I have had 3 boxes filled in June, with Italian bees. I shall not have much surplus honey, this has not been a very good year for bees; too much dry weather. I like the AMERICAN BEE JOURNAL.

THOMAS PARKE.

State Centre, Iowa, Sept. 13, 1880.



Barrels for Honey.—Can I put honey in oak barrels, with waxing, and have them hold? O. C. BLANCHARD.

Ironton, Wis., Sept. 3, 1880.

[Yes, if properly waxed, which is very difficult; at least 75 per cent. of all the oak barrels we ever saw (whether waxed or otherwise) containing honey, leaked. We advise the use of "sugar pine" or spruce; then make small casks, to hold not less than 10 nor more than 20 galls. (100 to 210 lbs). These will cost but little, if any, more than barrels, are much easier to handle, less liable to bruise in transit, and will command a readier sale in market. Few grocers or consumers care to buy a 500 or 600-lb. pkg. of honey at one time, and if the "middle man" has to repack to make a market, there is shrinkage in weight, loss of time and waste of barrel, all of which have to be made good, either by the producer taking a less, or the consumer paying a greater figure, or the "middle man" is a loser, and declines to handle in future without a larger margin.—ED.]

Deserted.—Mr. D. O. Byrne, a neighbor and beginner in bee-culture, having 6 colonies in the "golden" hives, requested me to come over and examine them. I found all doing well; one colony threatening to swarm; upon opening it, I found it heavy with brood, plenty of eggs, honey, and 7 queen cells, from 3 to 5 days old; I destroyed 4, leaving 3 of the best developed, not more than 2 days capped; I straightened some crooked combs, and closed it up to await further development of the cells, when I proposed to put them in nuclei. I considered the colony in good condition, the honey boxes being about half full. In about an hour after the bees came rushing out pell-mell, jumping from the alighting-board upon the ground, sweeping a trail for 2 feet, and arose. Mrs. B. ran out and settled them, thinking it all right, but as soon as settled they arose again and left for parts unknown. Upon examining the hive, every bee that could fly had deserted, leaving it with but a few young bees. Mr. B. filled up the hive again with bees from other colonies, to save the brood and queen cells. We cannot assign any cause, having never seen or heard of a similar occurrence. Give us your opinion of it. We use the golden bee hive here generally, and are well pleased with it. Bees are doing well

this year, except that they swarm too much; they have been swarming all this month; this is the second season for this year.

W. A. MILLING.

Biard, Texas, Aug. 24, 1880.

[It was a case of natural swarming. The bees were fully prepared to go, and were only awaiting a successor to the old queen, when you facilitated their departure by destroying the cells, thus persuading her that a rival had already commenced her work of destruction. This, too, we judge to be a case where the queen led out the swarm, from the fact of their not taking wing from the alighting-board, but following her on the ground till she gained strength to rise.—ED.]

Goldenrod.—Please name the enclosed flower. I think it must be the much-praised goldenrod. It grows wild, and often covers the landscape for hundreds of acres, and as it grows from 3 to 6 ft. high, it forms, as it were, a golden sea of bloom for several weeks each fall.

DAVID HIGBEE.

Avoca, Iowa, Sept. 3, 1880.

[It is one of the goldenrods.—ED.]

Killed by Glucose.—My bees all died last winter from being fed on glucose, so I am out of the business now and you can stop my BEE JOURNAL. H. M. M.

[The only thing we regret is that the writer of the above was so perverse as to disregard all the warnings given in the BEE JOURNAL about feeding bees such vile trash, and to deliberately murder them in such a disgraceful manner. We would as soon think of feeding our children on sulphuric acid, as to shut up our bees for the winter and give it to them to die on. Several similar cases are reported, where bees have been killed by feeding them on glucose.—ED.]

Clubbing Rates.—I have taken the BEE JOURNAL for years, and shall continue if I can get it at the same rate that others can. I know of no one near me who would subscribe for the JOURNAL so that I can get it at club rates, and now my only remedy is to send off to some agency; but this I dislike to do from principle. I think that people who are scattered apart have a right to be able to obtain public journals at the same rates that those can who are in more thickly settled places, where they

club together and save 50 per cent. on the cost. I do not see what publishers can hope to obtain by this method, except to estrange their own subscribers from them. The *Inter-Ocean* abandoned this clubbing nuisance long ago, and now give their paper to all alike at the same price. I respectfully suggest that it is very desirable to have the *BEE JOURNAL* published at the lowest self-sustaining uniform price. I like the *BEE JOURNAL*, and the good personal feeling it maintains in its discussions.

O. B. CURTIS.

Ulah, Henry Co., Ill.

[Mr. Curtis' points are well taken, and for several years we have been disgusted with the clubbing business. It is neither right, reasonable or just, and we shall continue it no longer than to the end of this year—then we shall inaugurate a new policy, which will be determined and announced in due time.—ED.]

Bee Killer.—I send you a block of basswood with a hole and plug, enclosing a bug or bee killer. I caught him with a bee on a sunflower. What is it?

J. H. EBY.

North Robinson, O., Sept. 7, 1880.

[It is *Phymata erosa*, or the stinging bug, which is fully described and illustrated in the 4th and 5th editions of my Manual for the Apiary, pages 293 to 297.—A. J. COOK.]

Freak of a Hybrid Queen.—Last spring I had a colony of fine Italian bees (the queen and workers were beautiful), and I concluded to rear some queens from her; some time in May I introduced her into a colony of black bees; the queenless colony of course went to work and constructed a lot of cells, which I removed in due time all but one, which was very large. I only succeeded in rearing one queen from those cells removed, which was a fine one and quite yellow; but the one hatched in the parent colony was a little, spindly thing, and as black as tar. What is the cause of that difference? The queen that formerly produced such fine 3 banded workers, produces nothing now but hybrids, with scarcely a sign of Italian blood in them. Now, Mr. Editor, please explain.

L. Z. LANTZ.

West Liberty, O., Aug. 20, 1880.

[The parent queen was a good Italian, but had been improperly mated, and of course her queen progeny was variegated; since then your attention has been

more critically directed to her worker progeny, which you find to be hybrids, and which was undoubtedly the case with the workers in the hive from which she was removed.—ED.]

A Wash for Foundation.—I take pleasure in sending you some root which I use on foundation rollers, also a sheet of foundation made on the 6-inch Olm machine, for you to try in your apiary. To use this root, soak it until you get the root soft, then squeeze the water out of it and use it on the rollers with a brush. If desired you can boil the root, but I think it best soaked. If you like it I can furnish it to bee-keepers. The foundation does not require washing after coming from the rollers. I start the sheet of wax through the rollers, and before it gets clear through, I lap another sheet, thin end first, on the thick end of the first one, and so on as long as I want to, cutting off as it comes through, so I have but one sheet to start from the rollers. Bees are doing tolerably well here. I wintered 47 colonies on their summer stands, and lost none. I have lost but 1 in winter for 5 years.

J. G. BIGLER, JR.

Nephi City, Utah, Aug. 8, 1880.

[It is too late in the season to make a satisfactory trial of the wash, but next summer we will be glad to do so.—ED.]

Fierce Stinging.—I have just looked through all of my hives. They are all in good condition for winter, but only 2 have given me any surplus, and these were stimulated in the spring, and I realized 70 lbs. of comb honey from each of these 2. My experience teaches that it is better to keep 1 colony in good condition than 100 and give them no attention. The hives I use are 1½ in. thick, poplar lumber, 10x12 in. wide and 18 in. long, for brood-chamber; for surplus or upper story just one-half the size of the brood-chamber. The common stock pea gives good forage for bees; it will grow in most any climate or soil. I had a strange occurrence with a colony of my bees this morning. A gentleman and lady wished to look at them and see the honey in the hive. As usual I used the smoker, but the moment the cloth was raised, the bees poured out profusely, stinging the parties present fearfully. I was compelled to abandon the place entirely; it was a strong colony and gathering honey nicely. My bees have always been amiable. Can anyone account for it?

J. SMITH HEAD.

Benton, Mo., Sept. 14, 1880.



A Stray Swarm.—There are few bees in this neighborhood; poor season for honey till fall bloom began, but since then it has been plenty. I bought 2 colonies of Italians last spring, and have increased to 5 artificially; lost 1; when the fall bloom began in the latter part of August, the bees all made preparations for swarming, and one swarm was a little too smart for me and left for elsewhere. One of my Italian nuclei which I was building up, has apparently given shelter to a swarm of wild blacks, as there are thousands of pure blacks in the hive; in fact, they completely outnumber the Italians. The queen I reared myself; she is fine-looking and prolific. I have been unable to find any black queen, and am just introducing into the colony an imported Italian queen, so as to have no question as to parentage. Is not my theory of the intrusion of the blacks probably correct; if not, what is the explanation?

FRED. C. BOWDITCH.
Brookline, Mass., Sept. 18, 1880.

[It is an unusual freak, but one which sometimes happens. A similar one occurred lately in the BEE JOURNAL apiary. It was probably an after-swarm, and its queen was killed in the melee upon entering the nucleus.—ED.]

Eggs that would not Hatch.—I send you with this letter the corpse of a queen which I had calculated to send alive, but she died before I was ready to send her. This queen was reared in a neighboring apiary, and never laid an egg that hatched into the larval state during an existence of 3 months. She laid in this time 1,000 eggs, but they dried and shriveled up, and she would lay repeatedly in the same cell. We exchanged her eggs to other hives with the same result. Now, according to the best authorities, these eggs should have hatched whether fertilized or not. If you will send her to Prof. Cook for dissection, I think probably he can find some trouble about the reproductive organs that will account for this remarkable phenomenon.

W.M. HAUSMANN.
Ashford, Wis., Sept. 2, 1880.

[This is another one of those curious cases mentioned in my Manual of the Apiary, p. 83. Such queens seem in every way perfect, but there seems to be a congenital defect with the ovaries. The eggs continue to grow in these organs but are imperfect, and so fail to develop. Such cases are found among

all higher animals. The special defect of the cells, for each egg is only a cell, has not been determined.—A. J. COOK.]

Fertile Worker, &c.—Bees have not done well here, this season. I lost a number of colonies by spring dwindling; I now have 24 colonies; they have filled their hives, but have very little surplus. The enclosed weed grows here from 3 to 9 feet high; the bees gather a great deal of pollen from it; it is in bloom for two months or more. What is its name? Do fertile workers ever get into a hive where there is a queen? I had a colony that was $\frac{3}{4}$ drone brood and I thought I would kill the queen and let them rear one. I looked for her and found her; when I was looking I noticed more than one egg in the drone cells but never thought of fertile workers. I removed all of their combs and gave them a frame of larvae and two frames of honey from another hive; in two or three days I looked for queen-cells, but instead, found eggs, from 1 to 7 in a cell. I then took another hive like theirs and put in a frame of brood and bees, and two more frames of honey and placed in their hive, and carrying them across the yard, put the frames and bees in with another colony, and thought that I should get rid of the egg layer, but did not. When I looked for queen-cells I found eggs the same as before. I then united them with another colony and did not have any hive for them to come back to.

J. C. PETERS.

Greenleaf, Minn., Sept. 10, 1880.

[The queen, evidently, had become worthless as a mother and hence the presence of this pest to the apiarist—a fertile worker.—ED.]

One Thing Lacking.—I have just been reading in the BEE JOURNAL, the reports of the crop of honey, &c., from different parts of the country, and thought, while reading, that one point of interest, at least to me, was omitted; and that was the price of honey in the home market of each person reporting. I thought it would be equally interesting to know the different prices all over the country, as to know the other conditions. I have been selling comb honey readily at 20c. I produce extracted honey only for my own use. The crop of surplus honey here is quite light, some of the largest bee-keepers have no surplus at all; while others have very little. I had a fair yield from 18 colonies. White clover was a failure; basswood was good for a few days; we

had a fair fall yield, and most of my bees are supplied for winter; but every thing stopped on the 7th, the weather suddenly turning cold and continuing so, till the 16th, with a little frost on the 13th and 14th; it is warmer now and the bees are out again, but are not getting any honey.

P. R. HUNT.

Plattsburg, O., Sept. 17, 1880.

Cleome.—What is it? Does it grow any where? Does it blossom the first year? Please explain and oblige a reader of the AMERICAN BEE JOURNAL.

JOHN C. WILMS.

Waupun, Wis., Sept. 14, 1880.

[It is a good honey-producer, blooms the first year, and grows in any good soil. It yields honey only early in the morning or late in the evening.—ED.]

Is it Foul-Brood?—My bees have a little dead brood with sealed caps, sunken but not perforated; no bad smell; would this be caused by the honey crop failing suddenly while bees are rearing brood rapidly, or is it a case of foul-brood? My increase from 14 colonies is 35; surplus honey 100 lbs. extracted.

A. SUBSCRIBER.

Hamilton, Ont., Sept. 18, 1880.

[Probably if you perforate some of the brood, you will find bad smell enough to convince you that it is a genuine case of foul-brood.—ED.]

Swarm Catchers.—Seeing in your JOURNAL for August, mention made of "swarm catchers," by one of your correspondents, F. W. Spear, Wyocena, Wis., could you give me any particulars of them, through the columns of your JOURNAL next month, if so I should be much obliged? I am only an amateur bee-keeper, but have not heard of any thing of the kind before. I think it would be a great boon to bee-keepers, if any thing can be devised to catch issuing swarms, as it seems impossible to entirely prevent swarming, but how to catch them is a puzzler to me. I am sorry to see such poor accounts of the honey harvest in your country. I think upon the whole ours is a very fair harvest.

E. J. HOLMES.

Cranbrook, Kent, Eng., Sept. 10, '80.

[A description of a swarm catcher may be found on page 487 of this JOURNAL. See also our May number, pages 219 and 250 for description of Bailey's Swarm Catcher.—ED.]

How to Winter Bees.—It has been too cold here for bees to do much this fall. A man here says that too much honey below will become as cold as ice in winter and freeze the bees. Is this so? He says the best way is to take out the frames of honey at the sides, and give them empty frames in the middle. I think the hives are full of comb honey below, but do not know how much.

C. FLETCHER.

Columbia City, Ind., Sept. 12, 1880.

[Leave only as many frames in the hive for winter as the bees can cover, removing the rest and put a division board on either side, and on the outside of these fill in with chaff, hay, leaves or something of the sort, and cover up warmly on the top with a blanket; then place over that chaff, leaves, sawdust or something of that sort to keep them warm and also to absorb the moisture generated during the winter.—ED.]

Cureulio.—In the last BEE JOURNAL I noticed an error in the item on the Curculio, p. 414, which please allow me to correct. The Curculio is a small dark snout beetle, or weevil, which when disturbed draws up its legs and falls to the ground, when it looks so like a dried bud that it is not readily distinguished. Early in the season during the cold days of May it is wholly nocturnal, later it works day and night. It continues to sting the plum till in July. Its puncture can readily be told from that of any other insect, as it is always marked with a crescent thus . The grub which hatches from the egg is maggot-like, as it has no legs. It works in plums, peaches, cherries and apples, and causes the plums to fall, but not the other kinds of fruit. Any one can find the Curculio by shaking their trees in June over a white sheet. Look closely and there will be seen the small bud-like weevils. The smoke from burning coal tar, will drive the Curculio away without injury to the trees, and save the plums, if it is practiced thoroughly. But the jarring method is perfectly effective and better. If desired I will give this method next spring, when it is needed.

A. J. COOK.

Lansing, Mich., Sept. 18, 1880.

[We] thank Prof. Cook for this correction and full description of the Cureulio, and shall be pleased to have him give his method of jarring, &c., when convenient.—ED.]



Honey Harvest.

We had so much rain in the early part of the season that bees could do nothing till Aug. 1st; since then they have stored some surplus. If the season continues as favorable as it is now, we shall have a good fall crop of honey.

G. W. ZIMMERMAN.
Napoleon, O., Aug. 25, 1880.

I put out of the cellar last spring 100 colonies of Italian bees; I have extracted 150 lbs. of honey, but ought not to have taken it; I shall not have any surplus honey. Mr. Hatch has 15 colonies, and said he examined a part of them this week, and they only had about 3 lbs. of honey in each hive. All the bees in this neighborhood are in about the same condition; some have starved.

R. S. JOHNSON.
Lockport, Ill., Aug. 30, 1880.

I shall obtain 350 lbs. of box honey (buckwheat) from 20 colonies; no extracted. What should I plant on my sand and gravel hills for honey plants?

H. A. KNUDSON.
Mt. Morris, Wis., Aug. 25th, 1880.

[Melilot clover, mammoth mignonette or almost any honey plant with deep-penetrating roots.—ED.]

On June 8th we had a storm that demolished every blossom; the bees had just begun to get well going, and this storm set them back fully a month; brood was dragged out, and every colony saw hard times and nothing to do. Since then bees have gained steadily. White clover was a failure; we had very few natural swarms. Since the 10th of August the honey harvest has been abundant, and will continue till frost comes. Price boxes that I put on one week ago are nearly full now, and capped over. Colonies are all strong, and in fine working order.

PHILIP P. NELSON.
Manteno, Ill., Aug. 26, 1880.

I commenced this spring with 10 colonies of blacks; increased to 18 by division, introducing young and prolific Italian queens; I have had 3 natural swarms during the last 3 days, making 21 colonies now, and expect 8 or 10 more in a few days. I use a 7-inch cap for surplus, but it is now a brood nest from bottom to top. I have taken only 100 lbs. of extracted honey, but have considerable in each hive now, and always aim to keep much there. To this I attribute my success in the management

of bees. I now have no blacks, and never want to keep any more. I have several colonies that are a little cross, but they give me the most honey.

J. S. TADLOCK.
Kingsbury, Texas, Aug. 29th, 1880.

I have extracted 500 lbs. of honey, and have taken off 1,000 lbs. of comb honey to date, and have some more on the hives yet. In all, I have about $\frac{1}{4}$ of a crop.

J. S. LORD.
Linden, N. Y., Aug. 30, 1880.

From 5 colonies in the spring, I had my first swarm on May 19; now have 20 colonies. The natural swarms are the largest I ever saw. I extracted 30 lbs. June 14th, and shall not have over 40 lbs. of box honey, which is second quality. I use the American hive. There are 4 or 5 others in the same condition, near me. I have blacks and Italians.

W. M. CHINNOCK.
Battle Creek, Mich., Aug. 24, 1880.

I commenced the season with 45 colonies, most of them very weak. I have 3,715 lbs. of extracted honey, and about 50 lbs. of wax; I have increased to 82 colonies. The season was too cold. The quality of the honey is very good.

S. S. BUTLER.
Los Gatos, Cal., Aug. 25, 1880.

For some unknown reason the honey crop has been exceedingly short with us. We have had a fair supply of rain and sunshine, and farm crops generally promise to be unusually abundant. The failure is very general, and there has been little natural swarming.

W. W. HIPOLITE, M. D.
DeVall's Bluff, Ark., Sept. 3, 1880.

The honey yield in this section has been very good; my bees have never done better. My 5 colonies wintered without loss, and gathered their first pollen on Feb. 26th, two weeks earlier than usual. They swarmed from May 8th to 28th, a full month earlier than usual. Two colonies swarmed 3 times, and have given 50 lbs. of comb honey. I shall have 300 lbs. from the 5 colonies in the spring (now 13). Apple blossoms yielded well, as did the locust; but basswood and white clover gave no honey. In June we had a heavy honey-dew running down the body of the pear trees on to the caps of my hives; but it is poor stuff for bees to winter on. It has been very dry here, and things are much parched up, but the bees are gathering some from fall flowers.

M. D. DUBoIS.
Newburgh, N. Y., Aug. 30, 1880.

On May 1, I had 53 colonies; increased to 79; have obtained 150 lbs. of white and 500 lbs. of dark comb honey. Honey is now coming in rapidly, and I expect to get about 1,600 lbs. F. WILCOX.

Mauston, Wis., Aug. 18, 1880.

From 25 colonies in the spring I now have 50, and 1,500 lbs. of honey (about $\frac{1}{2}$ of which is extracted). They are doing well now—gathering freely.

Mrs. E. M. COVERT.
Sellersburg, Ind., Aug. 24, 1880.

We have 10,000 lbs. of white comb honey, 2,000 lbs. of mixed, and expect a fair crop of dark honey. We never had thicker or finer flavored honey than this.

BENEDICT & NEWMAN.
Perry Center, N. Y., Aug. 24, 1880.

My bees increased 50 per cent., but I have no surplus white honey. The fall crop will, I think, be an average one.

M. BLANCHARD.
Sherwood, Wis., Aug. 20, 1880.

I have 165 colonies of bees, in Langstroth hives. They wintered well, but the spring was unfavorable. Bees have not swarmed much, nor gathered much honey.

S. RUGGLES.
Saratoga Springs, N. Y., Aug. 25, 1880.

From 95 colonies in the spring I obtained only about half a crop; I extracted 3,750 lbs., and have 650 lbs. of comb honey in 2 lb. boxes, all basswood honey. I expect about 500 lbs. of dark honey.

JOHN F. DIPMAN.
Fremont, O., Sept. 4, 1880.

I have extracted this season 5,680 lbs. from 29 colonies of bees in Langstroth hives (mostly blacks and none more than $\frac{1}{2}$ Italian). There is not a half crop on an average. I have taken out nearly twice as much according to the amount of bees as any one I am acquainted with. My apiary is in the mountains, and I had empty combs, is the reason of my having a larger yield than others. The honey is about equally divided between sage and dark honey, and is of fine quality and flavor. Honey is now worth from 6 to 7c. per lb. in Los Angeles; 2 years ago now it sold for $2\frac{3}{4}$ to 4c. per lb., and dull sale, while last Christmas it was scarce at $12\frac{1}{2}$ c. There is but little comb honey gathered here, as it is so far from market, and not a very good sale unless in glass sections and very choice. Last year about $\frac{3}{4}$ of the bees here starved out, and a great many lost all they had. Success to the BEE JOURNAL.

A. A. DEXTER, JR.
Cucamonga, Cal., Aug. 24, 1880.

Fall flowers are abundant, and our bees are gathering honey rapidly.

JOSEPH SAUNDERS.

Beatrice, Neb., Sept. 3, 1880.

I commenced the season with 86 colonies, and have extracted only 2,200 lbs. of basswood honey. The white clover was killed last winter, and the weather is so wet at present that bees can do nothing on the buckwheat. I had 38 colonies last year and got 3,600 lbs.

R. D. WILSON.

Platteville, Wis., Aug. 29, 1880.

Honey ready for market, 900 lbs. of comb and 1,500 lbs. of extracted. The prospect is good for 3,000 lbs. more of comb honey. I have 130 colonies of bees, increased from 50 in the spring. I have 1,500 2-lb. sections on the hives, which will soon be full. The honey is from mint, boneset and asters, of which the swamps are full. I have no home market, and would like to sell to some reliable person; could you name one or more in the BEE JOURNAL?

THOMAS H. SHEPHERD.

Ugly, Mich., Aug. 25, 1880.

[See our advertising pages.—ED.]

Bees in this section started off well in the spring, doing splendidly on fruit blossoms; the white clover secreted but little nectar, but basswood was the best I ever knew it in this section. Bees are now gathering from goldenrod, asters and thoroughwort, which promises well for an unusually large crop. In the spring I sold and doubled up till I had but 20 colonies. I shall secure about 500 lbs. of comb honey, 1,000 lbs. of extracted, and increase to 40 colonies. With no preventing Providence, I shall be at the National Convention at Cincinnati.

M. E. MASON.

Andover, O., Sept. 3, 1880.

My crop report is as follows: Box honey, white 300 lbs., dark 350 lbs.; extracted, white 4,000 lbs., dark 6,000 lbs. The amount of dark honey is of course estimated, but very closely, and will be likely to exceed the estimate. The amount of honey is at least double what I have obtained any one year heretofore. The season has been a good one with us here; not so good as I have seen, but better than the average. I esteem your crop reports from so many different localities, as one of the most valuable features of the JOURNAL, and hope you will continue to make them as full as possible. I had 85 colonies at the beginning of the season.

O. O. POPPLETON.

Williamstown, Iowa, Aug. 28, 1880.



We have had a nice fall yield of honey, and it is still coming in. I have extracted 3,000 lbs., and have obtained 1,000 sections from 75 colonies, since Aug. 5. I put a swarm on wired frames on Sept. 3, and now it is as good a colony for winter as I have. D. S. GIVEN.

Hoopeston, Ill., Sept. 20, 1880.

[We are glad to notice the improvement in the reports during the past 3 or 4 weeks. The rains have much improved the fall yield of honey in many parts, and made many a bee-keeper's face brighten.—ED.]

I wintered 20 colonies of bees, which came out healthy, but have no surplus honey; there being no white clover in this locality. Some bees are in poor condition here; no swarming anywhere; where there is buckwheat there is no surplus honey. S. H. RUEHLEN.

Full honey report for the year: I have 43 colonies of bees; extracted from 30 colonies 1,467 lbs.; no comb honey. This shows my report of 285 lbs. Aug. 14 was premature. J. CHAPMAN.

Home, Mich., Sept. 18, 1880.

[To have 1,200 lbs. *more* than you expected is a good disappointment, is it not? Many others are in the same condition, we are glad to say.—ED.]

Bees have only about one-half enough to winter on. They may get more yet, but it is somewhat doubtful. We had our first frost last night. I have 700 colonies of bees, and have many of them to feed almost all they require for winter, and it is not a very profitable part of bee-keeping. I. S. CROWFOOT.

Hartford, Wis., Sept. 9, 1880.

Bingham's honey report for 1880 is as follows: The clover season opened with 85 colonies of bees in fair condition. In June and July clover and basswood honey was stored to a limited extent, but as the prospect seemed poor and honey thin it was allowed to remain in the hives (an extra set on top) until enough had been stored in the two bottom hives to winter and spring the bees without spring care. September 17 and 18 we extracted from 46 colonies about 1,500 lbs. of very thick, nice clover and linden honey; as the entire surplus of the season, and the smallest honey crop we ever had. Our present stock consists of 116 strong colonies of bees in two-story hives, well supplied with honey for winter. Shall pack 100 colonies as usual—each one having two

sets of frames and 50 lbs. of bees, honey, pollen and combs for winter and spring use. T. F. BINGHAM.

Otsego, Mich., Sept. 20, 1880.

I commenced last spring with 7 colonies in box hives; 5 weak and 2 strong ones. I transferred into the Doolittle hive, have increased to 17, and have obtained 300 lbs. of section honey; my bees will have enough to winter on. I like the JOURNAL very much, and do not see how I can do without it.

CHARLIE W. BRADISH.

Glendale, N. Y., Sept. 5, 1880.

Bees are doing well on goldenrod and buckwheat. I commenced with 6 colonies, increased to 13 by dividing, and obtained 75 lbs. comb honey. J. H. EBY.

North Robinson, O., Sept. 7, 1880.

I have taken about 800 lbs. of comb honey, mostly basswood, a little buckwheat, and perhaps some white clover, though they seemed to get but little honey from that; but as there was white honey after the basswood was gone, I do not know what else it came from. The above from 9 colonies, with about 50 lbs. of extracted. S. E. TUBBS.

Auburn, N. Y., Sept. 7, 1880.

From 39 colonies I have of white comb honey 400 lbs., extracted do. 100 lbs.; and I expect 800 lbs. of dark comb honey and 200 lbs. of extracted.

GEORGE W. LONG.

Dearborn, Mich., Aug. 25, 1880.

The honey season has closed with about $\frac{1}{2}$ a crop of honey. From my 14 colonies in the spring I have obtained 900 lbs of extracted and 200 lbs. of box honey. A. A. E. WILBER.

Kelloggsville, N. Y., Aug. 20, 1880.

I have 700 lbs. of extracted honey from 43 strong colonies in the spring. I now have 56, mostly Italians; some blacks and hybrids. All are well supplied for winter; they are and have been strong all summer. It has been my poorest year. B. F. PRATT.

Dixon, Ill., Sept. 12, 1880.

I commenced last spring with 16 colonies; wintered on summer stands in large Quinby hive; no spring feeding; bought one nucleus colony and \$7.00 worth of foundation: Extracted 1,734 lbs.; box honey, 130 lbs.; total 1,864 lbs. Increased to 34 colonies, besides losing several that took "French leave" when I was not around. Bees are busy on golden rod now, with good prospect of getting all they need for winter stores.

Community, N.Y. S. R. LEONARD.

Correspondence.

Translated from the Bienen-Zeitung.

Speedy Cure of Foul Brood.

BY H—.

If any one desires to make microscopic foul-brood studies, he should possess such diseased colonies himself; to request others through letters or bee papers to send combs, bees or brood, is too circumstantial and unsafe, and these coming from a distance, would be likely not to possess any value.

For these reasons I had to make quite extensive experiments first to create this disease artificially, and second, to cure it again, and to prevent its spreading any further within my large apiary.

As my apiary is situated in quite an isolated spot, I could, without doing harm to any one but myself, undertake these experiments.

To create foul-brood within a hive, is not at all difficult; that is, if we would not at the same time desire to find out, how this disease in general voluntarily originates. I obtained the first foul brood, by feeding brood comb with sealed and unsealed brood, the same having passed over to a stage of fermentation and putrefaction, adding to it a little water; this mass showed all the symptoms of foul-brood. Of this stinking pap I put one part in 20 parts of thinned honey, putting the same into a flat vessel, and pushing it into the hive below the frames; as soon as this vessel became empty, another one of the same shape was placed as before, but this did not contain the food in a wet state, it was given to them, although of the same substance, as dry as possibly, so that through the air the micrococcus could rise.

In this manner therefore I obtained the first perfect foul-brood. Previous experiments with mere feeding did not offer such excellent results. But the point is not, how to create foul-brood, but how to cure it speedily and effectually. In this I proceed as follows:

If the well-known signs of foul-brood are noticed among a colony as for instance, first, want of uniformity in the color of the brood-cell coverings, of which some appear as if pierced in the center with a fine needle. Second, a slimy, yellow and brown mass after opening a brood-cell; third, black, rotten maggots, lying upon the lower cell-walls, being as yet not covered, then no delay must occur to securely fasten the entrance with a wire screen in such a manner that no bee can find egress.

This must be done when the weather is pleasant and in the evening when all of the bees are within.

Should the weather on the following morning not be pleasant and sunny, then by removing the wire screen, I give the bees free flight, but if the weather is pleasant and sunny, then I commence the operation.

The hive is carried into a closed up room, and from it I take one frame after another, brushing the bees off with a strong feather, trimmed off about half, and wipe the bees off the combs into a wooden box, this latter being about 8 inches wide, 13 inches long and 8 inches in height; the walls of this box and also the bottom and lid have an opening about 3x5 inches, over which is nailed a fine wire screen. After having brushed off the bees in this manner from all the combs, those that remain within the hive are also put into the box. When they are all within the box, then the cover is placed upon it and put aside, covering the whole up with a cloth that has been dipped into a solution of 1 per cent. of salicylic acid and water. The combs being now free from any bees, are covered up in like manner as the box; having done this, the vacant hive is thoroughly cleansed. For this purpose a solution of salicylic acid, 1 part of salicylic acid to 10 parts of alcohol is used, and with it, and the aid of a strong bristle brush, the whole receives a thorough scrubbing, scraping it subsequently with pieces of broken glass. When this is done, then the hive is submitted to another washing; in the same manner must the spot be treated, upon which the hive rested, and every object surrounding it. After this I place the hive upon its accustomed stand, and begin with the cleaning of the combs. These are uncapped and hung singly into a zinc-lined box, which also contains the solution, 1 part salicylic acid, to 10 parts of alcohol; within this the combs are moved about, raising and lowering them alternately for about 1 minute, when they are placed into the extractor and both sides emptied. My apprehension that I would aid in spreading the micrococcus while using the extractor on the combs, soon disappeared when I found, how well I could submit the whole to a microscopic control. The cover of the honey extractor was removed, and replaced by lights of plate glass, under the lower sides of which I fastened (using Canada balsam to make it stick) boiled cotton. After every few turns of the basket I inspected this cotton with Hartnack, system 9, ocular 3, and found no signs of living bacillarie.



Furthermore, I took from this cotton, selecting parts that had been nearest to the combs, and put it into several small alembics, which contained partly fresh distilled water and partly nourishing liquid, and closed them up with boiled cotton. For this method in searching for bacillariae and which is an excellent one, I am indebted to Prof. F. Chon, in Breslau, who makes mention of it in the second number of his contributions to Biology of the Plants, 1872, and can easily be followed. Here now I could not find the least trace of dimness, although I left these alembics with their contents stand quite a time. Examining the liquid with a strong magnifying glass, I found, it is true, a few bacillariae, but only dead ones. Yet another number of these alembics, treated in the same manner, with an alloy of the extracted mass, furnished similar results.

After this I assort the combs; those containing many cells with pollen, I cut out, and such as have only a few, are freed of them by digging them out; this pollen, removed from its structure and containing bacillariae and micrococcus, is, while crumbling it fine, mixed with a little alcohol and salicylic acid (1 part salicylic acid, 10 parts alcohol), and being thinned with honey-water, added again to the food and used. Now the combs once more are immersed and extracted, and put back into the hive.

When all the combs have been treated in this way, then I take the box, containing the bees, and place it with them into a second, somewhat larger zinc-tin box, which contains a solution of 1 part salicylic acid to 100 parts of water, its temperature is raised to 15-18° Reaumur, leaving it therein about 10 seconds. After that time the inner bee-box is pulled out again and exposed to the sunlight and air; about 10 to 20 minutes later it is again lowered into the solution for about 8 seconds, after which it is placed as before on a sunny spot. As it is only after a bath, lasting 30 seconds, that bees cannot recover, no apprehension need be felt, that the immersion of such a short duration might kill them; at least I have never lost a single bee thereby. Previous to, and after each immersion, I give the bees within the box a light shaking, so that they cannot remain together in a cluster, and that the solution is enabled to exert its influence over each and every one of them. That the fluid within the larger box must be sufficient in quantity, to cover the box that is lowered into it, is self-evident, the access of the fluid as well as its escape is made possible by the lattices. Here I should also mention that the bottom of the box containing

the bees is slanting, to enable the water, when the box is raised, to run off.

As soon as the bees have been rendered dry by the sun and air, and have entirely recovered, I fasten in front of the entrance to the cleaned hive a wire screen, being $1\frac{1}{2}$ foot square in front and from there up to the entrance diminishing in size on all sides, the base of which is horizontal up to the entrance; below this horizontal bottom, a sheet of paper is placed, to serve as a receptacle for the excrements and impurities carried out by the bees, which paper is to be changed daily. On one side there is a small sliding door, through which an unevenly divided feeding vessel is placed within, the larger division of which contains thinned honey with a little of the salicylic and water solution, the smaller division containing water. Having accomplished all this I return all the bees to the hive, and slide the window gradually up to the renovated combs. Here now I confine the bees for 2 or 3 days; they in the meantime removing the remnants of foul-brood, that have become hardened through the influence of the spirit and salicylic acid, from the combs.

But that I may not have anything more to do with this hive for the next 2 or 3 days, I shove through the opening, which is situated in the rear, below the window, a flat feeding vessel, which possesses a shiftable, perforated division, and place it in such a manner that the division wall is even with the window; into the outer, smaller division I place an uncorked wine bottle up side down. This bottle is filled with thinned honey, to which is added some of the crushed pollen and also a small quantity of salicylic acid solution; as the bottle stands with its mouth in the liquid of the vessel, it is quite plain, that only so much escapes from it, as is permitted by the access of the air.

In case such a diseased colony is very much reduced, it is well to strengthen it, by giving to them a capped brood comb from a healthy hive, leaving all the bees on it. The queen of a diseased colony need not be caged; at least I have in such cases never had a queen killed or injured.

After a lapse of 2 or 3 days, I remove the wire screen, allow the bees to fly out, and in every case I had the pleasure to find that the colony was cured.

Whilst I give this method to the public, it is my only desire, that my speedy and thorough treatment in curing foul-brood, may benefit all bee-keepers who may have this disease in their apiaries and to save to myself the trouble of answering questions in regard to it.



For the American Bee Journal.
A Proper Time for Queen-Rearing.

G. M. DOOLITTLE.

Years ago, when Mr. E. Gallup contributed largely to the pages of the *AMERICAN BEE JOURNAL*, he told us that the time to prepare our bees for winter was the month of August, and not to wait till October or November to do such work, if we wished to have success.

The reasons for such a course are that the bees form themselves into a sphere or ball as cold weather approaches, surrounding themselves with honey close at hand for use in cold weather. To this end, we find them in the fall unsealing the stores on the outside of the outer combs, and carrying it to the part of the hive selected for winter. Therefore we see, if after this is accomplished we disturb them by uniting, changing combs, etc., we must of necessity lessen the chances of safe wintering. In view of the above, which we believe to be correct, we have made it a practice to have all our queen-rearing done up before Aug. 20, and all nuclei and small colonies united, so that they may have sufficient time to prepare themselves for winter.

Again, as a rule, in this locality there is scarcely any honey gathered after Aug. 25, and queens reared out of the honey season have proved, as far as we have experimented, to be inferior in nearly all respects. We have had queens reared both before the harvest commenced in spring and after it had ceased in the fall, by the loss of the old queen, none of which proved to be efficient layers for any length of time. Nature designed queen-rearing and swarming only during a period that honey as well as pollen was being gathered from the fields, and we can always consider it safe to go according to the teachings learned by a close observation of our pets, and unsafe to go contrary to the rules and laws which govern the economy of the hive.

In view of the foregoing, we were not a little startled to read on page 130 of the *Exchange* for August, this advice by the editor :

"As this is the season when queens can be most cheaply reared or bought, there is no reason why the stock of queens cannot be reared now preparatory to next season's increase of colonies."

As the August *Exchange* put in its appearance August 26th, we are driven to the conclusion that this is the way the cheap queens are reared cheaply so they can be afforded at 65c., 75c. and \$1.00

each. Except in some portions of the West, where fall flowers are abundant, queens reared by commencing operations Aug. 26th, would not be worth 25c. each, calling a queen reared under the swarming impulse worth \$3.00 as a standard. At least, such would be my estimation of them from the experience of the last 8 years.

This rearing of cheap queens at all seasons of the year is suicidal to the best interests of the bee-keeping fraternity, although perhaps profitable to a few. As good prolific queens are of more importance to honey producers than all else combined, it stands us in hand to rear only the best, and if we buy, procure only such as are reared during June, July and the first half of August, and we soon shall hear less of poor and short-lived queens. On page 125, same number of *Exchange*, Mr. Sayles makes some close remarks and observations, and asks :

"Whether the necessity of rearing (queens) from the egg is theory, or the result of careful and long continued experiments?"

As this is a proper question, it may be well to look into the matter a little. As a rule, a larva fed for a queen from the time it hatches from the egg till sealed over, will produce a better queen than if fed as a worker for the first three days, and then fed as a queen, but we would much prefer the latter reared during July than the former reared in April or October.

Again, a prominent bee man advises as a sure way to get good queens, to get a frame of eggs the oldest of which are about hatching, place it in an empty hive, and place said hive on the stand of a populous colony. If you are sure you get only eggs or larvæ you will always get good queens, no matter (I suppose) when this removal is made. Nonsense! Such queens would not be worth introducing if thus reared in October, and I would rather have a nine-day queen reared in July, than one reared from the egg in this way at the same time. Still a queen from the egg under precisely the same conditions otherwise, is always preferable. When will our cheap queen-breeders learn that nature demands, to rear good queens, that there should not only be plenty of honey and pollen coming in from the fields, but that there should be bees of all ages in the hive to secure universal good queens.

Certainly no better queens can be reared than those reared in the swarming hive, where the queen lays the egg directly in the queen cell, and the larva is fed for a queen until it is sealed over.



Then, why not conform as nearly as possible to such a mode of queen-rearing, and not try to "climb up some other way," which can certainly be no better, and has numerous chances to be a partial, if not a total failure? Let us in this, as well as in all else we do, strive to use only the best means, and put forth every energy in our power to be advancing, until we shall have a strain of bees and a system of management that shall be as near perfection as is possible for mankind to obtain.

Borodino, N. Y., Aug. 28, 1880.

For the American Bee Journal.
Honey-Dew in Profusion.

W. M. KELLOGG.

After reading on page 324 of AMERICAN BEE JOURNAL for July, William Maxwell's article on honey-dew, I really wish he was here to-day. I would take him over to Benton Island and show him honey-dew to his heart's content, and he need not give me the \$10 either. For weeks back it has been very hot and dry here, and during that time our bees have been working lively on honey-dew.

Our honey-yielding flowers are drying up sadly, yet, by the help of honey-dew our hives are very heavy with honey, and bees are going into the sections; some few have sections ready to come off. I know not whether this yield of honey-dew is universal on the river-bottoms, but with us it is very abundant, and the bees make a literal "roar" on it, from as early in the morning as they can see till long after sundown. I have seen none of it dripping from the trees, but maple, oak, hickory, grape leaves, etc., are literally covered with it.

To stand under a tree on the island, one would think a huge swarm of bees was clustering overhead. I do not pretend to say what this substance is, but I do know there are great quantities of it, and our bees are doing finely on it. I have extracted some of it, and find it a very dark-colored honey (?) which I know comes from honey-dew, for at this time of year our honey is usually very white. But people seem to like the taste of it, and call it good; for myself I prefer something else. I have been a bee-keeper for many years, and this is my first experience with honey-dew. It is not only found on the islands, but the leaves on melon vines, and on the ground under them, have their load of it, on the sand 50 feet above the water level. I have seen no signs of insects in connection with it. This substance on the leaves can not only be tasted, but

if one had a biscuit along he could get a pretty good dinner of biscuit and—what shall I call it?

The high water injured our honey prospects, but this honey-dew is helping us out finely, and we hope for a continuance of it.

Quawka, Ill., Aug. 16, 1880.

For the American Bee Journal.

Those Egg-bound Queens.

H. L. JEFFREY.

On page 387 of the August AMERICAN BEE JOURNAL, I see that Mr. M. S. Snow seems to think that I might have been mistaken. Now, for the queens (and thanks to him for calling my attention to it again), if they had been just mated, according to my observation, they would not have shown any foreign substance after 48 hours, as it is generally absorbed from sight in that time, or nearly so; but in the cases I alluded to, the queens had been laying for some time, and, furthermore, they had their wings clipped, making it impossible to mistake young queens just mated for the ones introduced or belonging in the hives.

I have, since writing the first letter to the JOURNAL, had the satisfaction of seeing a queen in the primary stages of the disease. The lower end of the abdomen began to enlarge, and the orifice began to spread open; in about 4 or 5 days it began to show quite plainly but the substance still remained soft, and when it begins to harden, and as soon as hard like the scab of a sore it will do to run a needle through and tear off; if, in tearing, it should cause any bleeding, dip the queen's abdomen in thin warm honey and drop her among the bees. The honey will prevent the bees from attacking her, and will help to cleanse any matteration and take out any soreness caused by tearing off the substance resulting from the hardening of the eggs.

I did not intend that, if anyone saw a queen whose abdomen showed something attached should amputate it immediately; but as I had just been called on to examine that colony and saw the situation, I penned the short article to call the attention of our best informed bee-keepers to the fact, and hoping some one else would be able to give some light on the subject; also to prevent the pinching off of the heads of some good queens or that have been good, because they have stopped laying. I also object to giving a colony containing such a queen a frame containing any larvæ,

unless you want the bees to pitch her out of doors. Wait till she begins to lay, and if the colony is weak, as soon as her eggs hatch then give the colony brood in all stages, and you will find things go on all right.

Mr. S. speaks about his rearing Italian queens. I have reared over 1,000 since 1873, but I never knew everything go wrong-end first as they have this season. Sometimes you have them, and very often when you look for them you will find the combs covered with cells. It has been so with me ever since June, and I know of others that have been troubled the same. Such a season has not been known here before.

Woodbury, Conn., Sept. 13, 1880.

For the American Bee Journal.

A Concert by the Bees.

W. T. STEWART.

Many concerts have been given in the halls of our town—but the best exhibition in the line of music that has ever been our pleasure to witness was a concert given by the bees this summer (not in a hall) but in a patch of Simpson honey plant in my bee yard. There are about one hundred plants. The bees commenced their work on the second of July and the concert is still going on lively. For over two months the plants have been literally covered with bees from daylight until dark every day (Sundays not excepted), it looks and sounds somewhat like a good swarm in search of a good place to settle. It is undoubtedly the best honey plant we have. I have in the same yard almost all the known honey plants and I take a great delight in watching them. The Simpson is by far the best of all. Motherwort is second best. Both are easily cultivated and bloom all through July, August and September. If bee-keepers would plant the fence corners and waste ground in their respective neighborhoods with these two plants until they are well seeded, we might have honey stored in boxes all summer, and it would pay well. They both come from the old root every year, for a lifetime, and also new plants are springing up from the seed all around near the old ones.

I counted the seed pods on an average Simpson plant, they amounted to the enormous number of twenty-six hundred pods or flowers on one stalk, and there were four other stalks from the same root. I am planting the seed as fast as they ripen. I have seen but one bee on melilot this season or last.

I neglected to report my honey crop last month. I commenced the season with 35 colonies; increased by natural and artificial swarming to 73; I have 787 lbs. of white comb honey. I use the book frame, 10 inches square in the clear, 15 frames to the hive in summer and 12 in winter, mostly chaff hives. I work them by Doolittle's plan of spreading the frames in spring and towering up boxes or sections. My bees are mostly hybrids. Success to the BEE JOURNAL and Simpson honey plant.

Eminence, Ky., Sept. 14, 1880.

For the American Bee Journal.

Bee and Honey Show in Scotland.

J. D. HUTCHINSON.

Our bee and honey show was a fine one, and was a success except in finances. It rained incessantly for the first 3 days, interfering very much with the attendance. In Scotland we have had an excellent season, and I think bee-keepers have nothing to complain of.

The following is from the *Kelso Chronicle*, in reference to our show:

The Caledonian Apriarian Society held its 7th annual honey and bee show at Kelso, Scotland, on July 27 to 30, 1880.

The Society was instituted in 1874, and shortly afterwards was honored with the patronage of the Highland Agricultural Society. The aim of the Society's existence is to foster throughout the country a love for apiculture on the most humane, as well as the most profitable, principles; and the result of the Society's exhibitions, wherever they have been held, has been to introduce the bar-frame hive and the honey box, as well as to stamp out the inhumane system of killing the bees in order to get their honey. The exhibits in the show tent this year, although not so numerous as on some previous years, show a marked improvement in the science of apiculture. The center of interest to strangers was, as on other occasions, the observatory hives, where the Ligurians and the blacks were seen working side by side. The place of honor was awarded to an ordinary nucleus of 6 frames. Two well got-up Woodbury hives in glass cases were also much admired. Of greatest interest to the bee-keeper, however, was the excellent assortment of hives and bee-gear exhibited, showing all the most recent improvements, several of which have not hitherto been before the public. Mr. R. Steele, Fowlis, Dundee, deservedly carried off most of the honors in this department. It is to the



enterprise of this gentleman, Mr. Thomson, Blantyre; Mr. Young, Perth, and others that Scotland owes the rapid advancement in bee-culture that has been made of late years. Mr. Steele's collection of bee furniture was quite a museum. It contained, amongst its 30 articles, a comb foundation machine, hives of all sorts and sizes, supers, honey extractors, &c. One of the best articles in the tent was the extractor belonging to this collection. This is evidently the extractor of the future. Instead of having one large cylinder as hitherto, the new machine is composed of the ordinary central gearing, round which revolves two elliptical cases for receiving the combs. These cases may be turned on their own axes, so that the combs do not require to be withdrawn and re-inserted before both sides are emptied of honey. In this extractor the current of air which was previously so destructive to the young brood is altogether done away with; whilst the instrument is so constructed that it can easily be taken to pieces and packed away in a small space. The display of honey, especially the 23 lb. super, made up of 1 lb. sections, was very creditable.

A "manipulation" tent was erected adjoining the exhibition, where from time to time during each day interesting manipulations with live bees were carried on, by which the uninitiated are acquainted with the method of taking the honey without resorting to the destruction of bees. A gauze screen through which the whole operations can be witnessed, protects the visitors from the attacks of the busy little creatures.

On Friday a competition for driving bees took place for a silver medal offered by the Highland and Agricultural Society. The prize was for the one who performed the operation in the shortest time and neatest manner, and was awarded to Mr. James Johnson, who drove the bees and captured the queen in less than 7 minutes.

For the American Bee Journal.

Comb Foundation.

W. J. WILLARD.

I disagree with Mr. G. M. Doolittle on the comb foundation question. Two years ago I bought 10 lbs. of comb foundation from Mr. A. I. Root; out of that lot 5 sheets broke down for me and 2 sagged; the breaking down was my own fault (as I have since found out), and the sagging was the fault of those particular sheets. Last year I bought 10 lbs. of Mr. Chas. Dadant; none broke

down, and there was no sagging. This summer I sent Mr. Dadant some wax (it was dark), and the foundation which I received has been used both in the brood chamber and in the surplus boxes (1 and 2 lb.), what has been the result? Simply this: I have had neither sagging, bulging nor "fish-bone," and the foundation was very heavy, not more than 5 feet to the lb.

I really think that I can make a success of any good, pure, yellow wax foundation, excepting the wired. If wires will not do in foundation with lozenge-shaped cells, I certainly do not want them in foundation. I have tried them to the above extent.

Would it not be better for bee-keepers to make some allowance for latitude, longitude and season? I hardly think Mr. Doolittle has done himself justice in his criticism on comb foundation. But I have made several dollars out of what I learned from some of Mr. D.'s articles.

Jonesboro, Ill., Sept. 5, 1880.

Translated from the German.

Healing Power of the Bee Sting.

The Augsburg *Abend-Zeitung* has the following: We have related to our readers how a severe attack of the gout was cured by the sting of bees, and we owe it now to them, to further state, that our patient was a brewer from Markle—has enjoyed the best of health since that sting cure. Having been confined to his bed for weeks in the month of April, he has been up to this hour perfectly healthy after receiving those seven bee-stings!

A further confirmation of the curative power of bee-stings is found in the experiment that was made in the meanwhile at Rettenbach, in the upper Palatine, and which has since then been vouched for as true in every respect. The inn-keeper of that place, G. Hirl, had adopted some time ago a poor, lame girl, of 8 or 9 years (Magdalen Kuhn was her name), who could not even stand upon her feet. After all remedies had proven themselves fruitless, they, following the advice of a physician, took refuge to bee-stings, and lo! immediately after the first stings, an improvement took place in her condition which increased after repeated applications quite rapidly, so that the child now not only stands up without assistance, but can also run around at pleasure, and consequently we may assume, that a perfect and perhaps a lasting cure has been accomplished.

Augsburg, Germany.



From the Prairie Farmer.

Uniting Colonies of Bees.

MRS. L. HARRISON.

Most apiaries contain colonies that have not stores or bees to winter successfully, and should be united. This uniting of two colonies of bees when they stand side by side, by lifting the frames together into one hive, appears a very simple matter. And so it is, provided that you do not care if one colony kills the other. We used to follow apiarists, who told us to move the bees to the side of the hive they were to occupy when united, and as soon as they were accustomed to this, if a cold day came so that the bees would not fly, lift them together, giving each one the side of the hive formerly used, and as the weather grew cold they would unite peacefully. But we found to our sorrow that although, the bees did not fight when put together, if a warm day came, even if they had been put together a week, the stronger would exterminate the weaker. We now prefer to unite our weak colonies when the weather is warm, and not wait for October's cold to stiffen their fighting propensities.

The careful bee-keeper will sometimes find during August and September, a queenless colony; generally old colonies that had swarmed, and the young queen was lost on her bridal excursion; such colonies do not contain eggs or larvæ so the bees have not the means to raise another. We would remove the frames and give them to some late colony needing them, except what there were bees to protect, and put in a division board, confining them to one side of the hive. If we had an afterswarm, as they always contain a young vigorous queen, we would prepare it for uniting in the same manner. In the evening, after all the bees had returned from the fields, we would choose the location we preferred best, and set one hive upon the other, putting weeds or grass to obstruct the flight of the removed one, so that they would know that something was different, and mark their location. In two or three days the bees will know their abiding place, and can be lifted into the lower hive. There will be no fighting as each enters its own side of the hive, and as there is but one queen, they gradually assimilate. In the course of a week, we would brush off the bees from one of the frames of the queenless side, and put it in the other, removing the division board; in this way gradually increasing the size of the apartment containing the queen until all were united.

Bees seldom quarrel, if only one or two frames are taken from the same hive, thus taking enough bees from four or five different hives to form one colony—it seems to confuse them. In uniting together several small colonies, we would remove all queens but one, and hold all the others in reserve until it was ascertained whether the bees had accepted the queen given them. These queens could be kept in wire cages well provisioned, and if the nights were cool a few bees might be admitted with them, or if they were laid upon the frames under the quilt of a strong colony, they would be both warmed and fed, until needed.

Peoria, Ill.

For the American Bee Journal. Experience with Comb Foundation.

C. E. WALDO.

Noticing some reports of the experience of others with comb foundation, I will give mine. Last spring I bought a Bourgmeyer machine and began to get sick of it, because the foundation that I made stretched more or less according to the weight of the swarm. I use sheets of foundation $9\frac{1}{2}$ inches square; my frame, inside measure, is 10×11 in., so that the foundation fills, in width, within $\frac{1}{4}$ of an inch, and within $1\frac{1}{2}$ in. in depth.

I obtained some Dunham foundation at Lansing, Mich., and cut it the same size as mine, and put it into a new and heavy colony to try it. I put in the centre of the hive a frame of brood, so the bees would cluster the heaviest in the centre of the hive, then I put a frame of my foundation, next a frame of Dunham, then mine again. I had only one frame of the Dunham in the hive. The Dunham stretched clear to the bottom of the frame; mine stretched $\frac{1}{2}$ inch; the queen laid in the foundation made on the Bourgmeyer machine, both sides of the Dunham, before she laid a single egg in the latter, and this was one of the last the queen laid in. I make my foundation so it runs 7 feet in length by $8\frac{1}{2}$ inches in width (about 5 square feet) to the pound. I have 86 colonies at this date, which are now doing well, and have been all this month. The fore part of the season was too wet, and bees but little more than made a living.

Grand Ledge, Mich., Aug. 23, 1880.

[Your experience with the Dunham foundation was exceptional, and so much at variance with our own and scores of others who have tested it, that we are



convinced you unintentionally used a defective sheet, either in point of manufacture or quality of wax. We have had samples sent us, manufactured on the Bourgmeier machine, which were very fine, and much resembled the Dunham in thinness of base and height of side-wall; but even a half-inch stretch in any foundation that depth would be objectionable.—ED.]

For the American Bee Journal.

Healthfulness and Flavor of Honey.

E. R. BAKER.

There is a great error abroad in regard to the comparative merits of comb and liquid honey, which like every other error can have only pernicious influence and therefore could be squelched. The object of this article is to squelch the said error, which consists in the popular belief that liquid honey is in its nature inferior to comb honey in point of flavor. A moment's reflection will be sufficient to convince anyone of the fallacy of this idea.

We admit that liquid honey is sometimes inferior to comb honey, but not from its nature. It is inferior only in cases where it has received improper treatment.

1. The old fashioned "strained honey" was inferior because bees, brood, pollen and honey were all pressed together in a conglomeration mass in the process of straining, and as a result strained honey was not just as nice and sweet as honey in the comb.

2. Liquid honey that has been taken from the comb by any process before it is capped over and well ripened is vastly inferior to comb honey in flavor; in fact it scarcely deserves the name of honey. It is called green honey. It has not the proper consistency being too thin, however where honey is removed in this thin state and placed in jars with cloth covers, the water part will evaporate and the honey thicken and attain nearly as good a flavor as if it had been left on the hive until capped over.

Machine extracted honey has none of the objections that are urged against strained honey and when well ripened is fully equal to the best comb honey. This must, as we have said, be evident upon a moment's reflection, for the comb containing the honey consists only of beeswax and it is absurd to suppose the flavor to inhere in the wax. The flavor must be in the honey as it comes from the perfume-laden flowers. Take up a

comb of wax either before or after it has been made the receptacle of honey and chew it (or, if you are a very strong comb-honey advocate, eat it) and you are welcome to use as an argument against our position all the flavor you can get out of it.

Neither can it be plausibly argued that the flavor of honey is so volatile in its nature as to escape during the process of extracting; in none of the edible productions of nature or art do we find flavor so evanescent. There is no kind of syrup, liquor, extract or fruit that will part with its flavor upon such slight manipulation. The flavor remains in the honey after it is extracted.

It is held by some visionary theorists that the breaking down of the delicate cell-walls of the comb in eating it, so graduates the shock of sweetness on the sense of taste, as to greatly enhance its delicacy and power, while liquid honey overwhelms and destroys the finer sense of taste. If this position were true, then fine syrup or even sorghum molasses poured into combs and capped over by the bees, would possess the crowning excellence in point of flavor belonging to comb honey. Thus we leave this error to die in the last ditch.

Comb honey is also more expensive than extracted honey. It costs just twice the labor to bees and bee-keeper to produce the former than it does the latter. It takes just as long for the bees to build a set of combs as it does to fill them with honey.

By extracting the honey and returning the combs each colony will produce double the amount of honey.

A generous disposition therefore, as well as a spirit of economy must ever favor the use of extracted honey, for thereby, we have an increased amount, of equal quality, produced at far less cost, bringing it to the tables of double the number of households.

The argument of healthfulness also lies strongly in favor of extracted honey. I should hardly presume that it would be necessary to inform intelligent parents that wax of any kind is not a healthy diet for themselves or their children. Children sometimes chew wax to the slight detriment of their health, but no child would of its own accord swallow or eat it while reason held its throne. Does the wiser parent give it comb honey? Wax disguised in honey so that it can be swallowed to go on the mission of mischief, clogging the stomach, constipating the bowels; thus vitiating the blood and irritating the brain and nervous system!

Sidney, Iowa, July 15, 1880.



Translated from the Biennenvater.

Fructification in Closed Apartments.

FRANCIS JOSEPH GROHMAN.

If the bee-keeper has the necessary material with which to carry on the rearing of queens, and has also young, unfructified queens, then it will become necessary for him, in case he desires to have the fertilization accomplished with certain drones, to make two indispensable arrangements, namely: 1. A barrel must be arranged for this purpose, by fastening below the bunghole, within the barrel, a wire bottom or perforated sheet of tin. 2. A pretty large box, having 5 sides with glass doors, namely, to the ends, sides and top, constructed in such a manner that it will fit upon the hive. When these arrangements have been correctly completed, then the operation itself can begin.

One of the first queens coming out of the cell is put into the bunghole entrance, then the glass box is placed upon it with the opening closed, and there she remains to be nursed by the bees that are below the wire screen, until the time arrives in which the queens usually make their bridal trips. If the weather is favorable, that is, pretty warm, then the bee-keeper must place in the glass box the drone which he desires to fructify the queen, open the sliding door, and, as the queen has no knowledge of any larger space than that of her prison, she will immediately be attracted by the drone and the gleams of light that fall within the cage, and will start on her bridal trip, after which she must be replaced by another.

Austria, April, 1880.

[This is almost identical with several experiments that have been tried in this country, and pronounced impracticable because of frequent failures.—ED.]

From the Sacramento Record Union.

Go and Tell It to the Bees.

ADDIE L. BALLOU.

To my father, A. H. Hart, Sr., who who passed away while out with his little grandchild on the lawn watching the bees, which for many years have been identified with his daily life, at Appleton, Wis., in his 75th year. There is a tradition among the Eastern people, that when a death occurs in the family some other member must rap upon the hives and tell the bees, else they will go away. Could the dear old man have chosen the condition of his own exit,

this glorious setting of life's sun into peaceful and painless slumber would have been ordered as it was, on that afternoon in July last, when he arose newborn through sudden transition.

Have you heard the olden legend
By the Eastern people told,
Of the strange old superstition,
That when Death's dark pinions fold
Newly 'round some cherished loved one,
That the dearest friend to these,
To the busy hive must hasten
And must "tell it to the bees?"

Is it true some spirit lingers
"Twixt their busy hives and ours,
And that half the sweets they gather
From the breaths of human flowers?
Did some other winged thing tell them,
When the bees o'er drifts of snow
To her window came to perish
When she died, who loved them so?

How distinctly I remember
All those drear unmothered years;
Of the lake-side and the cottage
Where I wept my childish tears;
How, from early-budding April
Till the autumn seered the trees,
Every twilight found my father
Busy with his swarms of bees.

For they loved him, and caressed him
With their gauzy, restless wings,
Dusty with the yellow pollen,
Girt about with golden rings.
Year by year they thus enriched him
With the sweets from flowering trees,
And with each white thread that crowned him;
Dearer grew to him the bees.

Oh, I know how they will miss him,
All the summer afternoons,
When the languid perfume lingers
O'er the lily-spread lagoons!
And the angel that received him
Must have told among the trees,
When the dear old man, grown weary,
Fell asleep among the bees.

Busy bees, cease not your humming,
Burdened with the summer sweets;
Hallowed thoughts 'round you are clustered,
Where the past and future meets.
When shall come the dark-winged angel,
And my weary spirit free,
Will some loving friend or kindred
Tell it to my father's bees?
Sacramento, Cal., March, 1880.

For the American Bee Journal.

About Swarm Catchers.

GEORGE GARLICK.

In the Sept. No. of the JOURNAL, T. C. Thorn, M. D., inquires about swarm catchers. As I have made and used them for a number of years, I will give my experience with, and opinion of them. In 1869, having trouble from my bees settling on the trees of my neighbors, and their objections to my going on their property to take them, I devised a swarm catcher. It consists of a tin tube 10 inches long, 1 inch deep and 4 inches wide, the top having 10 openings 5-32x4 inches; 1 inch at each end is a little tapering; one end of this tube is nicely inserted into the entrance of the hive, and at the opposite end is placed a box 10 inches square, made of $\frac{1}{2}$ inch lumber, the end of the tube projecting



into the box about 1 inch. One side of this box is covered or made of a frame or door covered with fine wire-cloth; the whole costing about 50c. One of these was fitted to each hive just before the swarming season commenced. The drones and queen not being able to pass through the openings in the tube, pass on into the box and on the wire cloth, the swarm, on returning, settling with them.

Now, when a swarm starts out, if some one is on hand, by covering the openings on the top of the tube with a piece of board, cut to just fit over and close all the openings, all the bees are run into the box; now draw the tube out from the hive, close the end of the tube, and remove it and the swarm anywhere you wish, and hive them in the usual way; or, what is better, remove the old hive to a new stand, and put the new hive in its place; or, if you have good, close, new hives, with glass in one side to admit the light, you may use one of them in place of the box, and run your swarm directly into their new home; but I could never get them to enter a dark hive or box.

I have had as many as 4 swarms all issue within a few minutes of each other, and by running them into these boxes have kept them all separate and hived them at leisure.

Second or after-swarms may be hived in the same way, taking care to remove the catcher from the hive in about 12 days after the first swarm has left, so that the young queen can go out to meet a drone.

As this same arrangement confines all the drones, it may be useful in Italianizing, as all the common drones can be controlled. I may say that a few of the worker bees will go out through the tube, and find themselves in the box; to let them out I enlarge a few meshes of the wire cloth in the front of the box, and close to the top; this can be done with a scratch-awl, taking care that the openings are not more than 5-32 of an inch, or your queen may go out through them.

I tried a great many shapes, forms and experiments before I got anything to work to my satisfaction, and although I always managed to get the queen, I found some improvement could be made, and have no doubt this can be much improved yet.

For the benefit of any who may be disposed to experiment, I may say that I first tried perforated tin with round holes, for the bees to pass through; this let the bees out all right, but would take all the pollen from a loaded bee in trying to get into the hive again.

I then tried openings 5-32x1 inch; this worked better; but still, if a bee passed through close to either end, it would take the pollen from the side that came against the end.

I then made the opening the whole width of the tube, the tin being cut in the centre of the opening, and both edges folded back so as to leave no rough edges for the bees to wear out their wings on.

Now, after using these from necessity for several years, I find it better to examine hives often, and divide and increase artificially, rather than go to the expense of these swarm catchers, and they would be in the way when extracting. I have now removed my apiary to a place where my neighbors will not be troubled, and have this year increased them from 90 in the spring to 142, only 10 of these being natural swarms. I have discarded the swarm catchers, and they are lying around my apiary, their usefulness gone—killed by progressive bee-culture, the extractor, frame hives and artificial swarming.

The honey season here has been poor this year; not over $\frac{1}{2}$ a crop. I am putting mine in tin cans, holding 10, 20 and 60 lbs. each.

Warsaw, Ont., Canada, Sept. 8, 1880.

From Western Agriculturist.

Carrying Bees to Pasture.

C. P. DADANT.

The present season has been the worst to my knowledge of a great number of years in the bee business. The white clover was scarce, owing to the drouth of last year and there was therefore no June crop of honey. The bees were short of supplies ever since the beginning of spring, and instead of breeding and increasing in numbers, they became weaker and weaker, and July saw us with depopulated hives and a dry summer in the bargain. The drouth in these hills had parched the corn so that by August 15th it was fit to cut for fodder. Starvation stared at our bees. On the other hand, the bottoms of the Mississippi, which have been overflowed, were covered with a luxuriant vegetation and abounded in wild flowers. We therefore concluded to move them to those low lands.

On July 14th we started, with two teams and hay racks on which to haul the hives. Our intention was to haul them during the night to prevent the smothering of bees which the heat of the day would cause. We began packing and nailing at 9 p.m., and finished at 3 a.m., when we started. Arrived at

noon, and soon the heretofore deserted bottom land was literally swarming with bees, gathering honey from the millions of blossoms. In a week after, we had brought safely and in good order 115 colonies of bees to the same spot. At the end of the first week, one of the first colonies brought was found to have gathered 20 lbs. of honey during those 7 days. This hauling of bees to the bottoms will therefore prove to be a clear gain of several thousand pounds of surplus, while the bees on the hills will barely gather enough honey to carry them through the winter.

Hamilton, Ill., August, 1880.

Translated from the *Bienen-Zeitung*.

Apis Dorsata of the Island of Java.

C. J. H. GRAVENHORST.

A great deal has been written about this bee at different times, and yet our knowledge of it is very limited indeed. At an earlier period the report was published that it was much larger than our common bee, that it built combs as large as a wheel, upon the branches of trees, and was, withal, so wild and fond of stinging that it could not be tamed. Whether this report is based upon truth or not, can only be decided when more reliable intelligence has been received. Should this bee really be found in Java, then I should like to request Mr. Rykens, who at the present time resides there as an instructor in bee-culture, to forward to us, through the *Bienen-Zeitung*, reliable and thorough information in regard to the Dorsata.

I naturally suppose that Mr. Rykens, as an instructor in bee-culture, is a reader of the *Bienen-Zeitung*, and will certainly take an interest in a bee about which we are so anxious to be enlightened, and which might in very many respects revolutionize bee-keeping in the future.

I find in the AMERICAN BEE JOURNAL of Dec., 1878, an article worthy of notice from the pen of the renowned apiarist, Rev. L. L. Langstroth, whom we are pleased to call the Dzierzon of America, in which he writes about the Dorsata and its introduction into America.

He states therein that Mr. Woodbury, of Exeter, England, who has recently died, was the only one who ever saw the Dorsata and its comb-building. He further says he had many letters from him. He unfortunately died much too soon for the world of bee-culture. He says that these bees would also nest in closed apartments, for at one time a

swarm of this race of bees had settled down within a steamboat shed in the harbor of Galle, Ceylon.

The cells of the workers of the Dorsata are of about the same diameter as those of our bees, only a little longer. Mr. Woodbury, therefore, had taken the view, that our bees could use the cells of the Dorsata; they would only need to nibble them off a little. This, Mr. Langstroth takes as his basis, when he says that we could probably give to our bees a queen of that race, and that perhaps our drones would copulate with the queens of the Dorsata. Mr. Woodbury, he says, had placed much weight upon the fact that the Dorsata is much larger, and consequently has a longer tongue. In case the Dorsata could not be tamed, then a mixed breed could be produced, which might become, as far as activity is concerned, a valuable race of bees.

Braunschweig, Germany.

For the American Bee Journal.

What my Bees have done.

C. A. JONES.

I have been keeping bees for 40 years, more or less, and this is the poorest season for honey I have ever experienced. I wintered 32 colonies; sold one in the spring, leaving 31, all strong and in good condition. I looked for a large crop of honey and plenty of swarms. I had 9 or 10 swarms; sometimes putting 2 together; I put 1 second swarm back; 1 or 2 went back and did not come out any more. I had an increase of 8; sold 2 of them; only 1 of the remaining 6 has enough to last them; I shall double 2 and feed them. I thought I should have to feed all my bees but lately they have been storing honey from red clover, golden rod and other fall flowers. My bees are all hybrids; they stored considerable honey this spring from fruit blossoms and black locust; after that they barely made a living till lately. I think all but the new swarms will have a plenty for winter. The hives are quite heavy; I have had no honey, except about 50 lbs. of comb honey and about 10 lbs. of extracted. I shall get quite a number of boxes partly filled, which I will use to feed those that are lacking. The cause of the honey failure here was on the account of wet weather during the early part of the season. About the first of July it turned dry and has been so ever since, until within the last two weeks when, we have had a few light showers.

New London, Ind., Sept. 8, 1880.



Business Matters.

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THOMAS G. NEWMAN

974 West Madison St. CHICAGO, ILL.

Specimen copies of the BEE JOURNAL and our catalogue of bee literature sent free upon application.

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We have prepared Ribbon Badges for bee-keepers, on which are printed a large bee in gold. Price 10 cents each, or \$8.00 per hundred.

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By referring to the printed address on the wrapper of every copy of the BEE JOURNAL, each subscriber can ascertain when his subscription expires. We stop sending the BEE JOURNAL promptly when the time for which it is paid runs out—sending only during the time paid for. In making remittances, *always* send by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, and local checks, are not taken by the banks in this city except at a discount of 25c., to pay expense of collecting them.

Honey & Beeswax.

[We will insert free of charge, under this heading, the names and addresses of persons having honey and wax to sell, giving address, description and prices; all to occupy not more than three lines.—ED.]

7 bbls. clover and basswood, extracted, at 10c., delivered on cars here, and 500 lbs. of nice comb honey, in $4\frac{1}{2} \times 4\frac{1}{2}$ sections. H. F. WALTON, Woodman, Wis.

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Notice is hereby given, that the co-partnership heretofore existing under the name of THOMAS G. NEWMAN & SON, is this day dissolved by mutual consent. All accounts due to the said firm must be paid to Thomas G. Newman, who will also pay all claims against the late firm, and continue the publication of the AMERICAN BEE JOURNAL and Bee Books and Pamphlets. The business of dealing in Bee-Keepers' Supplies will be continued by Alfred H. Newman. Dated at Chicago, Ill., July 1, 1880.

THOMAS G. NEWMAN,
ALFRED H. NEWMAN.

Local Convention Directory.

1880. Time and Place of Meeting.

Sept. 28—Kentucky State, at Louisville, Ky.
29, 30 and Oct. 1—National, at Cincinnati, Ohio.
Oct. 5—Albany County, N. Y., at New Salem, N. Y.
5—Cortland Union, at Cortland, N. Y.
5, 6—Northern Michigan, at Carson City, Mich.
6, 7—Tuscarawas and Muskingum Valley, at Newcomerstown, O.
7—A. Buckley, Sec., Clarks, O.
7—Central Michigan, at Lansing, Mich.
Geo. L. Perry, Sec., Lansing, Mich.
14—Southern Kentucky, at Louisville, Ky.
14, 15—W. Ill. and E. Iowa, at New Boston, Ill.
15—Will. M. Kellogg, Sec., Oquawka, Ill.
20—Southwestern Wis. at Platteville, Wis.
N. E. France, Sec., Pletteville, Wis.
Nov. 9—Lancaster Co., Pa., at Lancaster, Pa.
Dec. 8—Michigan State, at Lansing, Mich.
1881.
Jan. 11—N. W. Ill. and S. W. Wis., at Freeport, Ill.
18—Northeastern Wisconsin, at Oshkosh, Wis.
Feb. 2—Northeastern, at Rome, N. Y.
5, 6—Ashtabula Co., O., at Andover, O.
W. D. Howell, Sec., Jefferson, O.
April 5—Central Kentucky, at Winchester, Ky.
Wm. Williamson, Sec., Lexington, Ky.

In order to have this Table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

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